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Regional Analysis of Historic Farmstead Archeological Site Characteristics on DoD Installations

Susan I. Enscore, Carey L. Baxter, George W. Calfas, and
Megan W. Tooker

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Regional Analysis of Historic Farmstead Archeological Site Characteristics on DoD Installations

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Installations"

Abstract

The Army is tasked with managing the cultural resources on its lands. For installations that contain large numbers of historic farmsteads, meeting these requirements through traditional archeological approaches entails large investments of personnel time and organization capital. Through a previous project, Fort Leonard Wood and ERDC-CERL cultural resource management personnel developed a methodology for efficiently identifying the best examples of historic farmstead sites, and also those sites that are least likely to be deemed eligible for listing on the National Register of Historic Places. This report details testing the applicability of the Fort Leonard Wood methodology to another region of the country. The Southeastern United States provided a temporal depth different from the earlier Ozark regional application. A historic context and determination of the “typical” farmsteads of the Southeast were developed. The Eligibility Prescreening Form created by ERDC-CERL researchers was modified to reflect the archeological patterns of the Southeast and then applied to test sites at Fort Bragg. The results of the fieldwork show this approach is applicable to the Southeastern region, and it can be used to quickly identify basic information about historic farmstead sites that can expedite determinations of eligibility to the National Register.

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Preface

This study was conducted for the Department of Defense Legacy Resource Management Program under Project No. 12-508, "Regional Analysis of Historic Farmstead Archeological Site Characteristics on DoD Installations." The Project Order number is DSAM20524. The technical monitor was Valerie Leone, Cultural Resources Specialist, DoD Legacy Program.

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The work was performed by the Land and Heritage Conservation Branch (CN-C) of the Installations Division (CN), US Army Engineer Research and Development Center – Construction Engineering Research Laboratory (ERDC-CERL). At the time of publication, Dr. Christopher White was Chief, CEERD-CN-C; and Ms. Michelle Hanson was Chief, CEERD-CN. The Deputy Director of ERDC-CERL was Dr. Kirankumar Topudurti, and the Director was Dr. Ilker Adiguzel.

COL Jeffrey R. Eckstein was the Commander of ERDC, and Dr. Jeffery P. Holland was the Director.

Unit Conversion Factors

Multiply	By	To Obtain
acres	4,046.873	square meters
acre-feet	1,233.5	cubic meters
cubic feet	0.02831685	cubic meters
cubic inches	1.6387064 E-05	cubic meters
cubic yards	0.7645549	cubic meters
degrees (angle)	0.01745329	radians
feet	0.3048	meters
hectares	1.0 E+04	square meters
inches	0.0254	meters
miles (US statute)	1,609.347	meters
ounces (mass)	0.02834952	kilograms
pounds (mass)	0.45359237	kilograms
square feet	0.09290304	square meters
square inches	6.4516 E-04	square meters
square miles	2.589998 E+06	square meters
square yards	0.8361274	square meters
yards	0.9144	meters

Abbreviations

Term	Spellout
AR	Army Regulation
CERL	Construction Engineering Research Laboratory
cmbs	centimeters below the surface
CRM	Cultural Resources Manager
DoD	Department of Defense
ERDC	Engineer Research and Development Center
GIS	Geographic Information System
ICRMP	Integrated Cultural Resource Management Plan
MCD	mean ceramic date
MRE	meal, ready to eat
NHPA	National Historic Preservation Act
NPS	National Park Service
NRHP	National Register of Historic Places
PA	Programmatic Agreement
RPA	Registered Professional Archaeologist

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1 Introduction

In 2004, Fort Leonard Wood requested the assistance of the US Army Engineer Research and Development Center-Construction Engineering Research Laboratory (ERDC-CERL) in creating a methodology for evaluating historic period archaeological sites for National Register of Historic Places (NRHP) eligibility (Enscore et.al. 2005). The resulting methodology has been successfully implemented at Fort Leonard Wood over the past eight years. The project reported herein is an expansion of that study, to determine if the methodology is applicable in areas other than the Ozarks location of Fort Leonard Wood. With funding provided in 2012 by the Department of Defense Legacy Resource Management Program, a beta test of the methodology on historic farmsteads was conducted in the Southeast region of the United States, and results are given in this document.

1.1 Background

The National Historic Preservation Act of 1966 (NHPA), as amended, defines responsibilities that federal agencies have to historic properties under their oversight. Section 106 of the NHPA stipulates that federal agencies must take effects on historic properties into consideration when planning and completing undertakings which it regulates, funds, or which occur on its lands. It defines “historic properties” as those listed or considered eligible for listing on the NRHP. Additionally, Section 110 of the NHPA requires cultural resource managers (CRMs) to develop preservation programs to identify, evaluate, protect, and nominate historic properties to the NRHP.

There are Army-specific mandates regarding historic properties that supplement and support Section 106 and Section 110. Army Regulation (AR) 200-1 requires installations to develop Integrated Cultural Resource Management Plans (ICRMPs), grounded in a landscape approach, to identify and manage historic properties on Army lands.

Military acquisition of vast amounts of land for new and expanded training installations during both World War I and World War II naturally included inhabited lands. Most of this habitation was in the form of individual farmsteads. As a result, installations across the country

contain numerous historical archeological sites that are the remains of these farmsteads. The occupants of all these sites once belonged to communities connected by kinship and social institutions, and they were displaced by the founding of multiple military installations. The impact of these farmsteads on the landscape remains visible on installation rangelands and buffer zones, although the occupants are long gone. Installation land managers must now determine how best to manage their former homesteads consistent with federal legal requirements. Key among these is the legal requirement to evaluate sites more than 50 years old for eligibility to be listed on the NRHP.

Very little guidance exists, however, on how to manage these sites. This problem goes back decades in cultural resource management, exemplified by a 1990 article in *Historical Archaeology Journal* (Wilson 1990) titled “We’ve Got Thousands of These: What Makes a Historic Farmstead Significant?” During the intervening years, the lack of specific guidance and evaluation criteria for making management decisions remained largely unaddressed. The sheer numbers of these farmstead sites makes the evaluation process laborious and very expensive. A method for grouping like farmsteads in regional associations and creating a standardized approach for making determinations of eligibility would greatly reduce the cost of evaluating them individually.

In order to maintain cost effectiveness in its cultural resources programs, the Department of Defense (DoD) can benefit from guidance on how to systematically evaluate its historic archaeological sites. Such guidance would provide the DoD with a valid and supportable methodology for rapidly identifying the many sites that do not require a full-scale site investigation to determine significance, thus saving time and money in cultural resources stewardship. The guidance would also provide a comprehensive perspective on the landscape that would be useful in evaluating new discoveries and making timely, appropriate mitigation decisions for undertakings involving the installation’s historic archaeological resources.

1.2 Objectives

This project provides the next step in creating regional predictive models for NRHP eligibility of historic farmstead archaeological sites on military installations. This project investigated the potential of collecting these farmsteads in a large, regional, cultural landscape group by determining

spatial and physical similarities and differences between the farmsteads. This work was accomplished by first applying a methodology finalized in 2005 for one installation (but applicable to the Ozark region) in the Midwest United States and then applying the same methodology to a contiguous three-state region in the Southeast United States, with the goal of testing the method on a regional scale to determine utility in more than one part of the United States.

1.3 Approach

The historic farmstead eligibility methodology created in 2005 contained two phases. The first phase consisted of compiling and analyzing available data on the historic archaeology at Fort Leonard Wood. Site visits to various archives and document repositories produced a significant amount of data to be examined for content and applicability.

The second phase focused on ways to incorporate the existing historic context provided by Smith (1993) into a systematic method for screening Fort Leonard Wood's historic archaeological sites in terms of potential eligibility for the National Register. A questionnaire, the *Eligibility Prescreening Form*, was developed with reference to landscape archaeology techniques, NRHP guidance, historic context, historical data gathered through research, and the findings from a study of area architectural styles and settlement patterns circa 1940. Simultaneously, historic themes and periods were identified within the historic context and used to create a *Site Inventory Form*, intended for use as a supplement to the official state archeological inventory form. Designed to be used as part of a two-step eligibility-screening process, the *Eligibility Prescreening Form* can be used with existing Phase I inventory data to indicate which identified archaeological sites warrant further investigation, and the *Site Inventory Form* can be used to guide and record those investigations.

A full explanation of the methodology and the approach for applying the historic farmstead eligibility methodology to the Southeast region is found in Chapter 2.

2 Project Methodology

2.1 Developing a regional methodology

Fort Leonard Wood and ERDC-CERL have developed a methodology for predicting the likelihood that late nineteenth-century to early twentieth-century historic farmstead archaeological sites will be eligible for the NRHP. The methodology consists of a historic context for the period that focuses on Ozark settlement patterns, economic activities, transportation systems, family structure, and regional topography. This context was utilized as the basis for development of a set of weighted criteria used to determine sites with sufficient information potential to warrant further investigation. Through using the weighted criteria, Fort Leonard Wood has successfully reduced the number of sites requiring expensive Phase II testing.

The development of in-depth historic contexts for every installation is time-consuming and expensive. It would be useful and more efficient if there were regional contexts for the history and cultural geography of this property type that could then be utilized in predictive models by adding a small amount of very local history. Before these contexts can be written, however, it is necessary to determine if there are indeed enough regional similarities in farmstead characteristics to support the use of a general context supplemented by very specific contexts for site evaluations.

2.2 Landscape approach

Preservationists have long recognized the value of using a holistic approach to researching historic and cultural resources. A holistic approach takes into account the relationships between a region's history and its infrastructure, landscape architecture, planning, and archaeology.

The American landscape is largely shaped by human activity and land-use decisions. It serves as the setting for events in the nation's history, and as such it is modified as a result of social trends as well as the more localized actions of groups or individuals. Change can occur suddenly and dramatically, as when a courthouse is razed or a community is constructed. It can also occur gradually and subtly, as in the vanishing of

windmills from farms or the replacement of wooden barns with metal pole barns. Over time, the landscape becomes a record of individual and group decisions, both economic and political, in terms of what to build and what to raze, what to maintain and what to neglect, what to preserve and what to replace. The decisions are guided by cultural values, whether pre-industrial or modern, local, or national. The landscape reflects those decisions and the cultural values that drove them.

As history plays out on the land, it leaves its mark. Sometimes the land remains relatively unchanged from generation to generation, but more often, changes accumulate in layers. In areas of extensive human activity, the landscape often appears as a patchwork, with elements of older layers “poking through” newer layers and surviving side-by-side with the elements of the newer layers.

The value of reading the landscape comes through recognition of relationships among the components that make up that landscape. Identifying and recognizing these patterns is akin to above-ground archaeology. In archaeology, an individual projectile point or pottery shard may be important for its form and design, but greater significance is revealed when its context and origin are understood. An understanding of the relationship of the object to other objects at the site, to the soil layer in which it was found, and to the site in general gives the object greater meaning and clarifies its relative significance. In a similar way, an individual building, structure, or open space in the landscape may have significance, but an understanding of its relationship to other landscape components and its general surroundings clarifies its relative significance.

A landscape approach provides a framework for understanding the relationships between a region’s history and its infrastructure, landscape architecture, planning, and archaeology. Recent National Register nominations of historic districts on military installations reflect this expanded approach with discussions of the overall plan of the installation and the interrelationships among their component parts. The evaluation of military installations as singular entities with unique cultural traditions and distinctive physical resources is the key to an integrated investigation encompassing all of the historic resources of a military installation.

2.3 National Register eligibility

NRHP eligibility is determined if a property possesses historic significance and sufficient integrity to represent that significance.

2.3.1 Significance

Significance is defined as the meaning or value ascribed to a cultural landscape based on the NRHP criteria for evaluation. There are four eligibility criteria against which site significance is evaluated for the NRHP. These four criteria are described in National Park Service Bulletin No. 15, *How to Apply the National Register Criteria for Evaluation* (NPS 1991, p 11).

- Criterion A applies to properties associated with events that have made significant contributions to the broad patterns of history.
- Criterion B applies to properties associated with the lives of persons significant in our past.
- Criterion C applies to properties embodying the distinctive characteristics of a type, period, or method of construction; possessing high artistic values; or representing a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D applies to properties that have yielded or are likely to yield, information important to prehistory or history.

2.3.2 Integrity

Integrity is defined as the authenticity of a property's identity, evinced by the survival of the site's physical characteristics. Archaeological integrity describes the quality of information and level of preservation for an archaeological site, district, or assemblage. Good archaeological integrity is ascribed to properties that are relatively intact and complete, and that have not been significantly impacted by later activities or natural processes. Poor integrity indicates that the site has been disturbed through the actions of people (such as ground disturbances or artifact collecting) or by natural processes such as erosion. The archaeological record, however, is complex; any determination of integrity must be made within the historical and modern context of the property.

Archaeological integrity is evaluated on seven aspects. These aspects of integrity are fully described in Bulletin No. 15 (NPS 1991, p 44–49) and summarized below.

- **Location:** the place where the item was constructed/manufactured or a historic event occurred;
- **Design:** the elements that constitute the form, plan, space, structure and style of a property;
- **Setting:** the physical environment of a property;
- **Materials:** the physical elements or parts that were combined or deposited in a pattern or manner to form an archaeological property;
- **Workmanship:** the evidence of the labor and skill of a culture or people;
- **Feeling:** the expression of the aesthetic or historic sense of a particular period of the past; and
- **Association:** the direct link between an important historic event or person and a historic property. (Under Criterion D, the link is measured in the strength of association between data and important research questions.)

Archaeological properties rarely have undisturbed cultural deposits. Long-term occupation or repeated revisiting of sites creates complex stratigraphy. Features visible above ground and the distribution of artifacts may be used as evidence of below-ground integrity. For properties considered eligible under Criterion D, integrity relates directly to the ability of the site to provide information to the research questions defined within the archaeologist's or installation's research design. In general, however, archaeological integrity is demonstrated by the presence of spatial patterning of artifacts or features that represent differential uses or activities and the lack of serious disturbance to the property's archeological deposits (NPS 1991, p 46–49).

2.4 Installation survey

In order to gain an understanding of the scale of unevaluated historic farmstead archaeological sites, an informal telephone survey was conducted with cultural resources professionals at twelve military installations across North Carolina, South Carolina, and Georgia. Of the twelve installations, four were Army, one was Navy, three were Air Force, and two were Marine Corps. There were also one joint Army/Air Force base and one joint Air Force/Navy base. These installations varied in size from very large Army installations to smaller Navy coastal facilities.

Installation personnel were asked to provide information on the number of historic archeological sites within their borders, and to break down those numbers by characteristics such as above-ground artifacts, record of non-agricultural activities on the sites, and century of site origin. The information gathered suggests that most installations have historic sites, and when averaged across the installations surveyed, nearly 76% of those sites

contain historic farmstead components (the variability of this percentage ranged from a low of 5% to a high of 92%).

The Army installations were by far the largest in terms of overall acreage, and these installations contained up to several thousand sites with farmstead components, comprising a very large percentages of their historic archeology sites. The Marine Corps bases were next in numbers of historic sites, but they represented a sharp reduction from the Army numbers. The Navy base and the Air Force bases had smaller numbers as well, but nine of the eleven total installations reported historic sites with farmstead components. Additionally, of the ten installations reporting historic sites of any kind, all had some sites that were strictly agricultural/residential. While there was a large amount of variability in the percentage of historic sites that were strictly agricultural/residential, seven of the ten had rates above 50%. At least a minimal level of above-ground remains were present in all but one of the installations containing farmstead component historic sites. For nearly all installations surveyed, the nineteenth century was the most common era for sites, although sites ranging from the seventeenth century to the twentieth century were indicated.

This brief survey provides a snapshot of the historic archeological inventory for a handful of installations in the Southeastern United States. Although the small sample and informal survey method mean that only broad generalizations can be made, one of those generalizations can be that there are a significant number of historic farmstead sites in existence on installations in the region. It is likely that the methodology presented in this report would be applicable to many if not most of these sites, and it could reduce the backlog of “potentially eligible” sites.

2.5 Context development

The first step in determining context for the sites was to ascertain the extent and type of information available on the historic farmstead architecture, materials, and layout in the American Southeast. Over several months, the project team collected relevant documentation. The types of material considered for this research project included historic contexts and reports, historic archaeology studies, and peer-reviewed journals and texts. For the case study portion of the project, the research team collaborated with Dr. Linda F. Carnes-McNaughton, the Program Archeologist/Curator at Fort Bragg, North Carolina. The Cultural Resources Management team at Fort Bragg provided aerial photographs,

historic photographs, newspaper articles, geographic information system (GIS) maps, land plats, and other materials relevant to the survey.

2.6 Eligibility components and development of a typical farmstead

Due to limited budgets, military installations often need assistance in making National Register eligibility determinations when considering opening training lands or other land management plans. The goal of this project was to determine a threshold for site eligibility that was not based solely on “blind” determinations made in a remote office and would not require a visit to every site in the area. Based on time periods and major themes from the installation’s ICRMP, patterns were sought between and among sites that reflected these historical and/or typological themes. One of the first patterns to emerge was the prevalence of similar household construction typologies. The documentary research suggested that house designs within the American South vary little, and that slight differences in the documentary or archaeological record play major roles in determining importance in terms of existing archaeological sites.

Since farmsteads and farm houses are a dominate marker on the landscape it became important to discern the typical site from the atypical site. In order to determine what was typical (or highly representative of each historic period), information on the local vernacular architecture and material culture was studied. Studies by cultural geographers and experts on the American South culture areas were reviewed, and content analyses were performed on sets of historic information regarding farmsteads from the beginning of the Colonial Period (1500) to about 1920, when the US government purchased lands in order to establish military training lands (about the time of World War I). A literature review provided information on common forms of farmstead arrangement, settlement patterns, and architectural styles for the region.

Concurrently with the literature search, previously identified historic archaeological sites on Fort Bragg, NC; Fort Jackson, SC; Fort Benning, GA; and Fort Gordon, GA were studied to help characterize the concept of a typical site. The cultural resources inventory and Phase I archaeological forms for these sites were content-analyzed to identify significance indicators such as number of features present, functions, type of construction material, footprint dimensions, and estimated age.

For the current work it was assumed that many Southeastern US military installation historic sites, particularly farmsteads, were similar in terms of size, materials, construction, and layout. A key task was to distinguish between the typical and the atypical so that, in the future, the number of properties on installation cultural resources inventories currently considered potentially eligible for the NRHP might be reduced. With the help of the methodology being described here, distinguishing sites as either typical or atypical can be done by: (1) determining which properties are the most typical; (2) finding the examples of those properties, determining their significance, and deciding which ones can provide the most information; and (3) preserving or documenting those “best” examples. Once these steps have been undertaken those typical properties that offer little in the way of new information (either through few artifacts or due to compromised integrity) can be determined not eligible for the NRHP.

2.7 Refining the Eligibility Prescreening Form

Using the significance indicators developed as just described, a checklist of questions was created to help indicate which sites require on-site investigation to effectively evaluate their National Register eligibility. Indications or “flags” of significance arise when there is variance between site features and the salient characteristics of the property. Significance flags can be assigned by analyzing information from the current archaeological inventory forms held by installation CRMs without incurring expensive on-site investigation. Where on-site study is warranted, significance flags can also help prioritize the sites for visits and further investigation.

The flags were assigned one of two levels of importance. Any Level I flags mean further investigation of the site is warranted. If three Level II flags were identified for a site, then further investigation is likewise warranted. A Level I flag suggests the significance of a particular site, while Level II flags suggest site integrity.

Level I flags identified for this research are: (1) site functioned as a farm; (2) continuity of ownership as discussed on maps, deed, or other historical documents; (3) site was a portion of an associated series of sites within the local vicinity; (4) potential exists for intact buried deposits based on subsurface testing; (5) intact site features exist (such as wells, barns, structure foundations, and fences); (6) estimated age of artifacts; (7)

occupied by a person of historical, regional, or local significance; (8) oral history available; and (9) extended or continual use of the site by one family.

Level II flags identified through this research are: (1) high site integrity, (2) multiple architectural features, (3) structure foundations, (4) potential for outbuildings, and (5) evidence of fences or property boundaries.

If the Level I criteria are not met, the site can be determined as *not eligible* for the National Register. The questions listed below are compiled in the *Eligibility Prescreening Form*.

Level I questions

In this section, **one** yes answer means that the site has a high probability of being significant and eligible for the National Register. A yes answer requires additional site survey and potentially further research. At the end of Level I questions, please proceed to Level II unless there were zero yes answers.

The following questions should be answered in conjunction with a site form, archaeological report, maps, and/or a site visit.

1. Is the site less than 25% disturbed and therefore possesses high site integrity?
 - a. If YES: move to Question 2
 - b. If NO: Is the site 75% or more disturbed?
 - i. If YES: Site has altered integrity and therefore is NOT significant.
 - ii. If NO: Site disturbance is between 25-75%, move to Question 2.
2. Did the site have a function other than an agricultural property? Is the property listed on deed records, maps, or other historical documents as something other than a farmstead?
 - a. If YES: Site may be eligible due to the low density of non-agricultural structures.
 - b. If NO: Move to Question 3.
3. Is the site on historic maps, property deeds, or other historic documents?

- a. If YES: Provide timeframe of the historic documents as the site is potentially significant.
 - b. If NO: Move to Question 4.
4. Is there potential for intact buried deposits based on subsurface testing?
 - a. If Yes: Site has potential for further research and is potentially eligible.
 - b. If UNK: Site has potential for further research.
 - c. If NO: Site has altered integrity and therefore is NOT significant.
5. Does the site possess structural features, such as intact in-ground or above-ground architecture?
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Question 6.
6. Does the site possess artifacts that were manufactured prior to the beginning of the twentieth century?
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Level II evaluation.

Level II questions

In this section, **three** or more *yes* answers to the questions below means the site has a high probability of being significant and eligible for the National Register. Three or more *yes* answers require additional site survey and research. Fewer than three *yes* answers indicates that the site is likely not eligible. Three is a suggested number and will be applicable to most sites; in rare circumstances the number of *yes* answers for the threshold may depart from this based on in-depth knowledge of the archeological record and the historic context for the installation.

1. Is the site a portion of an associated series of sites within the local vicinity that could suggest a larger community or district?
 - a. If YES: Site and associated sites have potential eligibility as a district and require further investigation.
 - b. If NO: Move to Question 2.

2. Does this site possess multiple architectural features?
 - a. If YES: The site is potentially significant.
 - b. If NO: Move to Question 3.
3. Is there a foundation larger than 10 x 10 ft and less than 30 x 30 ft on the site? (Note: structures that fall outside of these ranges are likely outbuildings.)
 - a. If Yes: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Question 4.
4. Is there evidence of small (wells, privy, shed, crib, etc.) or large (barn, stable, storehouse) architectural features?
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Question 5.
5. Is there evidence of fence construction? Fence construction often signals long-term tenure and can assist in determining the extent of the property boundaries.
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Question 6
6. Was the site occupied by a person of historical, regional, or local significance?
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Question 7.
7. Is there any oral history available for this site?
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Question 8.
8. Was there extended or continual use of the site by one family?
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to END.

2.8 Methodology application at test sites

This project tested the application of a methodology for an expanded Phase I archaeological survey of historic farmstead sites to assist installation CRMs in determining NRHP eligibility and reducing the number of potentially eligible sites waiting for Phase II surveys. The principle components of the Phase I expansion are evaluating the farmstead as an entire compound, evaluating the farmstead place in the cultural landscape of the region, examining the Phase I artifact assemblage to determine site age and usage, and the application of the *Eligibility Prescreening Form*. The goal was to see if the expanded Phase I survey could match the Phase II results in terms of eligibility determinations, as this would provide an efficient alternative to intensive Phase II investigations at many sites.

2.8.1 Standard Phase I and Phase II surveys

In traditional archaeological surveys, Phase I involves locating sites and conducting a preliminary assessment of age, condition, and research potential. The focus of Phase I is to identify the approximate site limits through the locations of surface architectural features, surface artifacts, and positive shovel tests. Artifacts recovered are examined to determine if any can provide an approximate period of occupation. Finally, sites receive preliminary assessments of condition and levels of site integrity. Sites are either classified as *ineligible* or *potentially eligible* for listing on the NRHP. Ineligible sites require no mitigation or preservation. Under current Army regulations, potentially eligible sites must be preserved as if they were eligible until a definitive determination of NRHP eligibility is made in a Phase II survey. For historic sites, Phase II surveys typically involve additional shovel testing, test unit excavation, detailed mapping, and identification of secondary structures. This data is supplemented by archival research that utilizes chain of title searches, census records, and historic maps to determine the size, economic activity, and ownership/occupation of the site.

In practice, most Phase I surveys focus on indentifying the location and age of the site but do not attempt to fully document all of the site's features. The understanding is that a later Phase II survey will accomplish that task more effectively. The goal of Phase I is to determine the site limits through the distribution of surface artifacts and positive shovel tests and to determine the age of the site through the recovery and

identification of diagnostic artifacts. Artifact type categories, such as kitchen group or architectural group artifacts, can provide some rough insight into the function of the site.

2.8.2 Expanded Phase I survey to determine eligibility

It is the opinion of the authors, gained through experience at Fort Leonard Wood and at Fort Bragg, that an expanded Phase I survey of a historic farmstead can provide sufficient information to make a definitive NRHP evaluation determination at many of these sites. Instead of simply identifying the site, the expanded Phase I evaluation proposed here (and described in more detail below) looks at how the site is positioned in relation to nearby sites and other significant landscape features, such as crossroads and river crossings. More effort is taken to identify the remains of architectural elements at the site (including chimney falls, cellars, secondary structures, and fence lines) and to distinguish between subtle feature remains and the effects of later, military-training disturbances. While an in-depth archival search may not be possible at this stage of investigation, the identification of property owners through a chain of title search and/or census records as well as the identification of any oral history available for the site will help situate the site in the regional social landscape. The expanded Phase I approach is based on the assumption that a farmstead site that contains multiple secondary structures or one that is tied to the regional community (through kinship, social, economic, or physical relationships) will likely have more information on site activity and be able to answer a wider variety of research questions (and therefore be more likely to be eligible for the NRHP) than a small, single-structure site.

2.8.3 Methods utilized to test expanded Phase I approach

The proof-of-concept test plan included the retroactive application of the *Eligibility Prescreening Form* (later often referred to as “the checklist”) to a sample of historic farmsteads that had already received a definitive NRHP evaluation through Phase I and Phase II surveys. This approach was possible due to the fact that Phase I and Phase II surveys are typically conducted as separate projects, with the results presented in separate reports, thus allowing a “blind” test. As previously stated, Fort Bragg was chosen as a test site due to the presence of numerous farmsteads that had been through the Phase II survey process. The fieldwork was conducted 27–31 May 2013.

To ensure that existing NRHP classification would not bias the ERDC-CERL researchers who were deploying the checklist in the field, the six sites that were evaluated for this project were selected by Fort Bragg CRM staff. The ERDC-CERL researchers who conducted the field work did not conduct any research on Fort Bragg archaeology before arriving on site. They were not provided with the identity of the sites until the day prior to the field work when they received a list of the site names, numbers, and copies of the relevant pages of the published Phase I reports. Field work was conducted, the checklist applied to each site, and the write-up completed prior to the researchers examining the Phase II reports for each site. It was only at this point that the ERDC-CERL team learned of the NRHP status as determined by traditional archaeological survey techniques. The results from the checklist evaluation were then compared against the Phase II reports to determine the effectiveness of the checklist survey.

The six sites selected to be visited for this survey were: 31CD485, 31CD815, 31CD832, 31 HK214, 31HK1842, and 31HK1850. The majority of the sites contained mid-to-late nineteenth and early twentieth-century components, although two sites had occupations that ranged back to the early nineteenth and late eighteenth centuries. Circumstances, however, reduced the number of site evaluations from six to five. Site 31CD832 was overgrown with underbrush and thicket, which made traversing the site extremely difficult and subsequently prevented a thorough survey. Simultaneously, there was military training in the vicinity, so it was determined advisable not to stay at this site for the same amount of time devoted to the other sites visited. Because equal attention and care could not be devoted to the evaluation of this site, it was excluded from our study.

During this fieldwork, the aim was not to conduct a complete Phase I survey, but rather to supplement the data from the original Phase I survey with data and insight derived through application of the checklist. As a result, a complete Phase I was not repeated for each site; the data derived from the original Phase I was utilized and augmented. The original maps were consulted and are presented in this report. The original mapping efforts for the Phase I evaluations focused only on the above-ground architectural elements such as chimney falls, the range of artifact surface scatters, and the locations of positive and negative shovel tests.

ERDC-CERL researchers' site revisits focused on verifying the locations of features mapped during the Phase I survey as well as identifying and mapping surface features that were indicative of secondary structures, and carefully documenting any apparent disturbances to the site. On a farmstead complex, the main residential structure (house or cabin) is considered the primary structure of the site and is typically identified by chimney foundations or falls, cellars, and/or stone and cement foundation structures. The farmstead complex would have contained many secondary structures such as barns, chicken coops, silos or corn cribs, sties, root cellars, wellhouses, outhouses, etc. These secondary structures are typically represented on the surface of archaeological sites by regular-shaped depressions that are located a short distance from the main structure.

Additional shovel tests beyond those conducted for original Phase I survey were not conducted during the 2013 visits. Since there was the distinct possibility that some of the sites examined were eligible for the NRHP, additional ground disturbance activity would not only have further disturbed the archaeological record but also would have required site revisit forms to be generated and filed with the State of North Carolina and permanent curation space for any recovered artifacts to be obtained by the Fort Bragg CRM. This level of activity was seen as causing unnecessary additional burdens on the Fort Bragg CRM staff. Instead, the artifacts recovered in the original Phase I were pulled and examined by ERDC-CERL staff in order to answer the artifact-based questions on the checklist.

Use of GPS mapping devices on Fort Bragg required approval and levels of authorization from Range Control. Fieldwork was conducted in May, and it was predicted that the sites would be in forested areas where the leaf cover would hamper the GPS signal acquisition and accuracy. It was decided that the amount of information derived from GPS mapping would not exceed the extra burden on Fort Bragg CRM staff in obtaining the required authorization, so absolute mapping techniques were ruled out for this effort. Instead, sketch maps were generated of all features found on each site. The locations of site features were mapped by using compass bearings and taped distance measurements from a central point. When possible, this point was the same as the site datum placed during Phase II investigations. The one exception to the mapping protocol occurred at Site 31HK1850 which was overgrown with poison oak. As a result, the site

was mapped with a combination of compass bearings and pacing, since it was considered inadvisable to expose hands and tapes to the irritant.

2.8.4 Separating military-use site impacts from farmstead features

Military training has occurred near or within some of the sites considered for this project. Infantry training can include earth-disturbing activities, primarily the excavation of infantry fighting positions or foxholes. These earthworks often take the form of shallow depressions that can accommodate one or two men in a prone or crouched position. These depressions can appear very similar to the shallow depressions that indicate smaller farmstead secondary structures. The principle method of distinguishing between the two was the analysis of back-dirt berms. Farmstead structure depressions may be caused not by excavation but instead by soil compression due to the weight of the structure, deliberate tamping, soil compression to form earthen floors, and/or inadvertent tamping due to increased and focused foot traffic. For structures where the depression was the result of deliberate excavation, the excess soil was frequently removed from the immediate vicinity of the structure for aesthetic reasons or to prevent the pooling of mud and water near the foundations of the structures. Farmstead compounds are older than the subsequent military training activities, so any earth-disturbance activities related to the farmstead have been subjected to erosion processes for a longer period of time than military-related earth-moving activities. As a result, depressions associated with historic farmstead structures typically have minimal or no corresponding back-dirt piles. Infantry fighting positions, however, have corresponding back-dirt piles closely associated with the depressions. These piles provide extra cover to the men seeking shelter within the feature. In addition to the mere presence of such piles, the back-dirt forms predictable patterns. The back-dirt in fighting positions is almost always located on only one side of the depressions. When the fighting position is on a hill, the back-dirt is always on the down-slope side of the excavation. When there are collections of fighting positions, the excavations usually align with the back-dirt piles located on the same side of each depression or the positions are organized in a circle pattern with the back-dirt on the outside of the circle. These patterns correspond to training activities where soldiers are protecting themselves from a simulated enemy.

2.8.5 Assistance from Fort Bragg CRM staff

As previously stated, Fort Bragg CRM staff selected the sites for testing after being given a directive by ERDC-CERL to pick out sites of various ages that were exclusively agricultural/residential in nature. The staff also accompanied researchers on the site revisit, providing local knowledge of which flora species on the site were native, which were endemic invasive species, and which were volunteer plants that were most likely descendants of plants deliberately planted by people on the site. Fort Bragg CRM staff provided ERDC-CERL researchers with 1884 and 1919 maps of the installation properties for historical evaluation and insight into the previous archival work that had been done on previous projects. Additionally, they provided information about the existence of oral history for the sites. ERDC-CERL requested that the actual information in the oral history be withheld. Fort Bragg CRM personnel were aware of the findings and conclusions in the Phase II investigations of each site, and it was possible that in the relating of oral tradition, they might have inadvertently provided information that was only available as a result of Phase II testing.

3 Historic Context for Southeastern Farmsteads

The focus of this project is to test a methodology for uniformly making sound determinations of eligibility for the archaeological remains of farmsteads situated on military installations throughout the American Southeast. Within the region, the project focused on the specific histories of North Carolina, South Carolina, and Georgia. These states each possess multiple military installations, many of which were established in the early decades of the twentieth century. The histories of these states contain many similarities and differences to a point that both continuity and divergence can be evaluated. The similarities in construction typologies across borders allows for this proposed methodology to be constructed. Different groups of Euro-Americans settled and relocated throughout these states, bringing with them proxemics (social ideas for everyday actions) from each of their own homelands. These similarities echo across the various yet similar geographies, which affected the type of subsistence agriculture that was possible. The following section briefly describes the history of these three states and suggests differences and similarities that may be visible in the archaeological record in any given area.

3.1 General context

3.1.1 Historic periods of significance

Historic sites in these Southern states have the potential to possess information regarding European and early American construction techniques. These construction techniques can potentially date back to initial contact of Europeans in North America. Due to the longer duration of American history in the southern United States than in other parts of the country, there are multiple historic periods; therefore, historic sites should be evaluated within a singular specific historical context. Thus, antebellum period sites should be compared and evaluated against other antebellum period sites and not against Revolutionary or postbellum sites. The following are a list of suggested historic periods in which to evaluate sites. These historic periods reflect national trends and provide regional comparison, but they are not directly representative of any specific event at the local level.

- *Colonial Period (1500–1775)*
- *Revolutionary Period (1776–1789)*
- *Antebellum Period (1790–1860)*
- *Civil War (1860–1865)*
- *Postbellum Period (1865–1890)*
- *Progressive Era (1890–1920)*
- *Depression Era (1929–1940)*

3.1.2 Historic maps

Each installation may have different area-specific historical maps and documents at their disposal. The following is a noncomprehensive list of maps that should be considered prior to conducting a site visit or prior to using the checklist: historic maps, historic atlases, plat maps, insurance maps, and tax maps. When available, multiple maps can be informative in evaluating historical sites since they show potential property boundary shifts over time, changes in the built environment, and may show ownership and help to date a property. These factors are all important in determining a period of use for the property and eventually in determining its significance. They are important resources in reading the landscape and in determining what was there historically versus what is there today.

3.1.3 Artifacts

The following artifact tables are designed to provide basic dating information for common artifacts typically found at Southeastern United States farmstead sites. Table 1 and Table 2 are not all encompassing, so land managers should refer to the Society for Historical Archaeology,¹ National Park Service,² or local artifact guides for specific typologies and date ranges.

¹ www.sha.org

² www.nps.gov

Table 1. Basic dating information for ceramics typically found at southeastern US farm sites. (Sources for compilation: sha.org; nps.gov; Miller and Hunter 1990; Miller 1980; South 1977; Noël Hume 1970.)

Ceramics and Attributes	Date Ranges
Creamware	
General	1762–1820
Deep-yellow glaze	1762–1780
Light-yellow glaze	1775–1820
Hand-painted overglaze	1765–1810
Transfer-printed overglaze	1765–1815
Shell edge	1770–1820
Annular	1785–1815
Pearlware	
General	1779–1828
Undecorated	1779–1820
Transfer print	1795–1820
Underglazed transfer print	1783–1830
Painted underglaze, monochrome blue	1779–1820
Painted polychrome	1795–1820
Annual	1815–1820
Blue line painted parallel to rim	1810–1833
Fish-scale border	1800–1820
Sponged (trees and birds)	1800–1815
Porcelain	
Bone china	1796–1825
Bone china (sprigged)	1840–1860
China (export) overglazed, enamelled	1660–1820
China (export) underglazed, blue	1660–1820
China (export) Canton	1800–1835
Shell Edge	
Curved-line scalloped	MCD 1832
Embossed patterns	1823–1835
Even-scalloped, blue/green w/impressions	1800–1835
Blue, unscalloped and unmolded	1865–1895
Impressed bud motif	1813–1834
Unscalloped rim	1840–1860
Scalloped, impressed shell edge	1820–1840

Ceramics and Attributes	Date Ranges
Whiteware	
Underglazed color decals	1908+
Decalcomania	1890+
Transfer print (dark blue, black, sepia)	1820+
Transfer print (light blue, other)	1828+
Annular	1820-1850
Hand-painted underglaze	1820+
Flow blue transfer print	1840-1860
Sponged	1840-1880
Hard paste; Ironstone	1840+
Annular (green border, mocha)	1815-1850
Plain	1820-1900+
Stoneware	
American grey	1720-1900
American grey cobalt	1787-1900
Albany slip	1805-1920
Alkaline	1812+
Bristol	1835+
Buff paste (w/clear alkaline glaze)	1840-1900
Buff or two-tones paste (salt glaze)	1840-1900
Redware	
Lead-glazed	1750-1900
Slip decorated	1733-1850
Red, brown, green glazed	1750-1900
Unglazed	1893+
Yellow ware	
Undecorated	1830-1900
Rockingham Bennington	1845-1900
General (American)	1830-1930
Banded (blue, white, and brown)	1840-1930
Mocha	1795-1840
Lusterware (pink or purple)	1780-1830
Earthenware	To-1830

Table 2. Basic dating information for glassware typically found at southeastern US farm sites.

Glasswares	Date Ranges
Formation process	
Freehand blown	To 1835
Dip mold	1818-1860
Two-piece mold (blowpipe pontil)	1818-1860
Two-piece mold (improved pontil)	1840-1875
Two-piece (snap case)	1860-1875
Three-piece (blowpipe pontil)	1830-1860
Three-piece (improved pontil)	1830-1875
Three-piece (snap case)	1860-1905
Turned bottle	1880-1905
Finish	
Fire polished	to 1855
Laid on ring	to 1845
Folded (simple)	to 1875
Flanged	to 1875
Applied-tooled (cork)	1825-1875
Applied-tooled (internal threads)	1860-1875
Applied-tooled (Codd)	1872-1895
Applied-tooled (Roorbach)	1885-1895
Applied-tooled (wire bail)	1875-1895
Applied-tooled (Hutchinson)	1879-1895
Applied-tooled (crown)	1892-1910
Ground rim (grind)	1820-1870
Ground rim (screw threads)	1858-1915
Machine-made (cork)	1903-1915
Machine-made (crown)	1903+
Machine-made (wire bail)	1903+
Machine-made (lug)	1906+
Machine-made (screw thread nonstandard)	1903-1920
Machine-made (screw thread standard)	1919+
Surface treatment or color	
Flint or lead (clear)	1750-1850
Black (opaque)	1650-1880
Soda-lime (clear)	1860+

Glasswares	Date Ranges
Surface treatment or color(cont'd)	
Soda-lime (purple, pink, amethyst)	1880-1918
Soda-lime (yellow)	1915+
Glass seal lids	1969+
Molded, hammered	To 1870
Chilled iron	1870+
Embossing and labeling	
Figural flask	1830-1875
Gothic style	1830-1875
Embossed panels	1867-1915
Slug plate	1850-1915
Mason jar	1858+
Embossed (poison, skull, or cross-bones)	1870+
Embossed (federal law)	1932-1964
Screen painting	1935+
Nails	
Hand wrought (rosehead)	To 1790
Hand wrought (T-Head)	To 1790
Hand wrought (L-Head)	To 1790
Hand wrought (headless)	To 1790
Hand wrought (roofing)	To 1790
Early machine cut	1790-1810
Early modern machine cut	1810-1825
Modern machine cut	1830-1890
Wire cut (France)	1830-1855
Modern wire cut	1855+
Wire	1980+

3.2 American Southeast context

The modern-day state boundaries projected on a map do not properly convey the history of the Southeastern United States. This modern-day region has similar geographies and histories that stretch from state to state. The geography and history sections that follow are not a holistic description of either, but rather a short summary meant to display similarities. These similarities allowed farmstead sites to develop along similar lines and to possess similar characteristics regardless of state or (in

some cases) historical context. Installation land managers should refer to individual installation ICRMPs or local histories for more detailed information.

Settlements within the research area depict European and Euro-Americans searching for lands where farmsteads, and other pursuits, could be established. Early settlements often occurred near the coastal areas and successively moved inland over decades of land acquisition and native population removal. These settlers encountered differing geologic regions, each differently suitable to agriculture and dwelling construction.

Military installations in this research project are primarily in the following geologic regions: Coastal Plain, Sand Hills, Piedmont, and Blue Ridge. These geographic divisions are established by geologic boundaries associated with land mass formations. These regions each possess differing terrain, which allows for a diverse range of agricultural activities. Thus crops that are typically grown in one geographic region might not be suitable in another. Farmers often built structures that were appropriate for given agricultural activity and likely avoided the construction of outbuildings not suited for their geographic location. It should be noted that while agricultural construction within these geographic regions tended to be historically classified (e.g., plantations, subsistence farming), these separations are arbitrarily based on the volume of research interest. For example, archaeologists researching Coastal Plain sites have concerned themselves for decades with plantation archaeology, an academic venture that has relegated the farmstead to relative obscurity due to the lack of primary and secondary data.

3.2.1 Geography

Coastal Plain

The Coastal Plain is a physiographic province of low relief along the East Coast of the United States that extends from Long Island, New York, southward to a Georgia/Florida section of the Eastern Continental Divide (Atwood 1940; Eardley 1951; Whitney 1996). The Coastal Plain is bordered on the west by the Atlantic Fall Line and the Piedmont plateau and to the east by the Atlantic Ocean. The Coastal Plain's average elevation is less than 900 m above sea level and extends from 50–100 km inland. The Coastal Plain is generally wet, and includes rivers, marshland, and swampland. It is composed primarily of sedimentary rock and sediments,

and is primarily used for agriculture (USDA 1981). Agricultural land consists mainly of cropland suitable for growing soybeans, cotton, and tobacco in the southern regions and soybeans and corn further north. The topography is primarily flat, and many soil types are poorly drained (USEPA 1997). The region's dominant land uses are farming and forestry, with urban development being significant in localized areas. Land cover is primarily a mixture of forest, wetlands, and agriculture. The climate has moderate to mild winters and hot, humid summers, with 40–60 in. of average annual precipitation.³

Sandhills

The Sandhills region is situated in North Carolina and South Carolina, and is a strip of ancient beach dunes. The sand that dominates the region is evidence of the region's former coastline that was formed principally during the Miocene Epoch approximately 20 million years ago (Atwood 1940; Eardley 1951; Whitney 1996). The Sandhills region is bordered on the west by the Piedmont and to the east by the Coastal Plain. The mostly porous, sandy soils tend to be drought-prone, and irrigation is required for agriculture. The well-drained soils are excellent for peach production. Most of the Sandhills were forested with Longleaf pine, Loblolly pine, Turkey oak, and Blackjack oak (USDA 1981). Oaks increase under conditions of wildfire exclusion, whereas Longleaf Pine will dominate under a regime of frequent fires. Undergrowth vegetation consists of plants that are well adapted to drought conditions, as well as the frequent lightning-induced fires typical of the region. Wiregrass is frequently extensive in the undergrowth. Land cover is primarily coniferous plants, especially pitcher plants, which often occur in the herb layer. The climate has moderate to mild winters and hot, humid summers, with 40–70 in. of average annual precipitation.

Piedmont

The Piedmont region is a geographic province of the larger Appalachian Mountain division. The Piedmont is bordered by the Blue Ridge Mountains to the west and the Sandhills and Coastal Plain to the east. The Piedmont consists of the Upland and Lowlands terrains. The Lowlands transition to the Uplands as the elevation increases to the north and west. Piedmont soils are generally clay-like and moderately fertile (Atwood

³ All rainfall totals were obtained from NOAA: http://www.srh.noaa.gov/ffc/?n=rainfall_scorecard.

1940; Eardley 1951; Whitney 1996). In some areas, the soils have suffered from erosion and soil exhaustion through over-cropping, particularly in South Carolina and Georgia where cotton was historically the chief crop. The predominant land cover types in the Piedmont are deciduous/mixed forest and evergreen forest (Kramer and Elliott 2004). In the central Piedmont region of North Carolina tobacco was a primary crop with secondary agriculture that included orchards, dairy production, and subsistence farming (USDA 1981). The climate has moderate to mild winters and hot, humid summers, with 35–65 in. of average annual precipitation.

Blue Ridge Mountains

The Blue Ridge Mountains are a portion of the larger Appalachian Mountain range. The southern physiographic region begins near the Roanoke River Gap in Virginia and terminates in northern Georgia Divide (Atwood 1940; Eardley 1951; Whitney 1996). Before the arrival of European settlers, native tribes in the Blue Ridge Mountains of the Southern Appalachians cultivated pumpkins, tobacco, corn, beans, and squash. By the time the early pioneers arrived in the region, Native Americans were living in agricultural societies of great complexity. Their influence on pioneers was profound, as the newcomers learned about native crops and adopted local methods of cultivation. Contact between the Spanish and these native groups led to the exchange of agricultural practice which expanded the food materials grown in the region. The Scots-Irish brought with them their preference for scattered single family farms and engaged in slash and burn agriculture utilized by the local Cherokee tribes. German immigrants systematically cleared the land they settled, grinding stumps, piling stones to create walls, and utilized felled trees for firewood. These German populations introduced notching techniques for log buildings, cantilevered barns, wood shingles, and central chimneys. The English introduced apple growing, sheep herding, and other agricultural practice—all governed by written law and dominated by a merchant elite business class. The climate has moderate to severe winters, warm summers, and 50–65 in. of average annual precipitation.

3.2.2 General settlement history

North Carolina

Historians have speculated that the earliest European contact with the Native Americans living in North Carolina—mainly Siouan groups such as the Pee Dee, Cape Fear, and Waccamaw groups—may have occurred during the 1524 exploratory voyage of Giovanni da Verrazzano (Loftfield and Littleton 1981, 19). The plan to reconnoiter the Atlantic coast included a brief foray to the southern coast of North Carolina between Bogue and New River Inlets. After Verrazzano's French superiors failed to capitalize on the explorer's discoveries, the entire North Carolina coast lay open to colonization efforts by other countries. It has been speculated that the Walter Raleigh and John White expeditions of the 1580s planned to establish settlements in the region; however, those efforts were unsuccessful. Following the failure of the Raleigh settlements and the subsequent establishment of the first permanent English colony in Jamestown, Virginia, in 1607, European settlement began to trickle into North Carolina. By the end of the 17th century, settlements had appeared on the coast, but Europeans did not begin to expand into the hinterlands until after the Tuscarora War (1711–1712; Watson 1995, p 2–3).

North Carolina's early economy was based on agriculture, forest products (mainly naval stores), fishing, and limited manufacturing (Loftfield and Littleton 1981, 62–64). Agricultural pursuits were focused on corn, peas, and livestock. Abundant pine forests nourished the growth of the naval stores industry based on ready supplies of tar and pitch. Due to proximity to the eastern border on the Atlantic Ocean, fishing was an important occupation. Milling was the principal manufacturing industry in the remaining eastern portion of the territory.

These various economic activities attracted settlers to North Carolina in the decades before the American Revolution. A large portion of North Carolina's population was indentured servants and enslaved Africans, with approximately one-third of the inhabitants during this period were slaves (LBA 2006, 8; Watson 1995, p 18–19). Slavery in North Carolina did not reach the similar population proportion since the land was less-fertile when compared to other southern states (Loftfield 1979; Parker 1990).

North Carolina was a land divided during the American Revolution. Based on the region of immigration to the colony, inhabitants either remained

dedicated to the British Crown or were loyal to the revolution. Along the coast, residents were spurred to action by external events such as the Boston Tea Party, the Intolerable Acts, and military actions in neighboring provinces. Local issues included gubernatorial authority, currency shortages, and the proper jurisdiction of colonial courts contributed to the growing anti-British sentiment. During the war, men from the coastal communities served in the state militia and the Continental Army. However, in the region of the Sandhills, the population that arrived pre-1760 were predominately of Scottish descent and those who arrived post-1760 were Highland settlers, all of whom remained loyal to the crown. Aside from the political leanings, favor for the crown was created in part through oaths forced on these settlers in exchange for parcels of land. Additionally, Loyalists believed that the rebellion was not in the best interest of a colonist due to social and moral convention (Kelly and Kelly 1998; Meyer 1961).

People living from the coast into the Sandhills lived in “modest conditions with well furnished homes” (Schaw 1921). In the decade prior to the American Revolution, sawmills were established throughout the populated portion of the state. Between 1764 and 1775, an average of two new mills appeared in each county every year (Watson 1995, p 13–14). Regardless of location of immigration farmers began to construct plank-on-frame construction throughout the region. Access to sawn timbers allowed for similarities in house design throughout the state (Kelly and Kelly 1998; Meyer 1961).

After the Revolution and through to the end of the Civil War, the population of North Carolina displayed variable increases. In the Sandhills region, the white and enslaved population grew steadily but remained approximately a 1:4 white to black ratio. This stagnant ratio is attributed to the lack of fertile agricultural lands and less need for enslaved labor. However, coastal farmers with access to more fertile land acquired more slave labor and gained a larger portion of the agricultural economy. By 1800 along the coast, the white to black population ratio was closer to 1:2 (Meyer 1961).

During the antebellum period in North Carolina, the population expanded and new lands were acquired in the Piedmont. Access to these lands and development of the cotton gin led farmers and plantation owners to begin the cultivation of short-fiber cotton. The development of cotton plantation

and farms spurred industries along the transportation routes between the Piedmont and coastal ports. By 1810, approximately 600 cotton looms were in operation in Moore County (Wellman 1974). The geography in the Sandhills region provided access to moving water that could power such industrial activities that became a means to process these raw materials. Due to the variation in industrial activities in the Sandhills region, transportation routes from the Piedmont to the coast converged in the Sandhills. The blending of people in this region of the state led to the sharing of social ideologies, such as house design and construction techniques (Parker 1990).

Like the remainder of the Southern population, North Carolinians begrudgingly accepted social and political changes that occurred after the Civil War and into the twentieth century (Parker 1990). Tenant farmers became a mainstay throughout the South and typically consisted of poor whites and newly freed African Americans. Newfound freedom of the formerly enslaved population theoretically meant greater opportunities for increased quality of life. Freedmen often opted to remain in the cabin where they had been held in bondage. These clustered cabins shifted to become small-scale farming hamlets throughout North Carolina and much of the agricultural South. Due to the fiscal limitation of sharecropping, postbellum black tenant famers seldom were able to construct new living quarters and often reused building materials from abandoned cabins. Due to the reuse of these materials, few examples of standing architectural remains of sharecropper/slave cabins exist throughout this region. However, new farmhouses that were constructed during this period were constructed in line with other construction techniques throughout the South. Thus, balloon-framed and I-houses tended to dot the agricultural landscape in North Carolina.

South Carolina

Colonization of modern-day South Carolina did not transpire during any one successful expedition by European colonists. During the first 150 years of European interactions in the region, numerous successful trade exchanges and failed settlements occurred. The first attempts of Europeans to colonize modern-day South Carolina began in 1526, when Lucas Vasquez de Allyon off loaded passengers along the Carolina coast. His landing party consisted of approximately 500 people who would establish the settlement of San Miguel de Gualdape (DePratter 1994). While the exact location of San Miguel de Gualdape is unknown, it is

thought to have been along the mouth of the Pee Dee River in South Carolina or the Cape Fear River in North Carolina. This site was abandoned several months after establishment in 1527. Following expeditions led by Hernando de Soto (1540) and Juan Pardo (1566-1568), trade and social relations with native groups were further established throughout the region.

In South Carolina, the Colonial Period began in 1670 when 150 British colonists arrived at Albemarle Point on the Ashley River. These early European settlers engaged in subsistence agriculture growing corn, beans, and root vegetables. By 1674, subsistence agriculture had become so successful that a surplus of materials was being produced to support the expanding population. Eager to increase the colonial footprint and lessen the population stress at Albemarle Point, a group of British colonists moved southward and established Charles Town in 1780. These colonial settlers were extremely successful and the population increased to 2,200 in 1682 and 7,000 by 1701 (Mills 1825; Wallace 1951).

Settlers in South Carolina eagerly discovered the economic advantages of expanding their daily pursuits beyond subsistence agriculture. In addition to traditional agriculture pursuits, colonists often focused on materials that could be exported and exchanged in England and other European nations (Taylor 1935). For this reason, animal hides, forest products, and salt stores were established as cottage industries in many towns and outlying farmsteads. In the seventeenth century, English shipbuilding increased, and colonists further expanded their cottage industries by taking part in the acquisition of raw materials for the tar and pitch industry. By 1714, South Carolina farmers and colonists were producing in excess of 11,500 barrels of tar and pitch that could be exported to the shipbuilding ports of England (Clowse 1971; Kovack and Winberry 1987).

South Carolina farming activities grew beyond agricultural pursuits to include raising cattle and pigs. Small-scale agriculturalists often raised 3–10 cows and similar numbers of swine (Otto 1986). These numbers often increased on larger farms and plantations throughout the region. Pickled pork was one of the primary food products provided to the enslaved Africans held on South Carolina plantations (Burton 1985; Faust 1985; Vlach 1990). Since plantations were often focused on a single production crop, smaller-scale farmers were relied on to provide other staple goods.

The livestock on farms and plantations were allowed to roam free, and farmers constructed fences to protect their crops from these animals.

The coastal lands of South Carolina tended to be populated by people from England, while interior settlement was dominated by peoples of Scots-Irish descent. During the colonial period, interior parcels of land were allotted in 50-acre increments, and few farm settlements grew beyond 500 acres (Gregorie 1954). In an effort to protect against attacks from local native groups, interior settlement occurred along well-established travel routes. Farmers tended to establish farmsteads along waterways where the soils were more fertile and there was access to bountiful timber. While interior settlers had a tendency to settle an area along with other people, each farm was a self-sufficient single-family location. The farmhouses constructed in this area were often along the edge of the agricultural activity area (Gregorie 1954; Otto 1986; Ramsey 1964). Farmers often constructed single or double room cabins with clay or split log floors and waddle and daub chimney (Woodmason 1953).

After the Revolutionary War, the price of land in South Carolina dramatically increased due to an influx of northern affluent landowners who wanted to expand their economic sphere. These wealthy persons acquired multiple small-scale farms, coppering them together in order to create their large plantation. Small-scale farms were denoted as less than 150 acres of land. While many farmers took this opportunity to sell their small South Carolina farms to move westward, many other farmers held these small properties and filled the agricultural void by providing food supplies to the neighboring mono-cropping plantations. The single-family farms that remained continued the practice of subsistence agriculture. In 1850, 43% of single-family small-scale farmers were self-sufficient, but only 17% of plantations held the same achievement (US Census 1913; McCurry 1995).

During the middle of the antebellum period, framed structures increased in popularity among both farmsteads and plantations since fewer materials were required for wall and frame construction. These newly adopted construction techniques made use of the area's booming timber mill industry. While there were mill costs associated with framed buildings, the decrease in materials required allowed for easier and faster construction of single-family and multi-level structures. The single-family, framed farmhouses were more likely to be built on piers, often of locally

produced brick, and multi-level homes often utilized foundation walls (Clark 1973). Houses owned by the poorest of famers were rudimentary structures that often had gaps between the hewn boards (*ibid.*).

The postbellum period brought a dispersed settlement pattern to the former large-scale plantation. Many former slaves remained on land in which they were once held captive and started a new lifestyle as tenant farmers. Tenant farmers dispersed themselves throughout the plantation landscape, working fertile and exhausted soils alike in exchange for wages and rations. Along with dispersion came the proliferation of small-scale cabins throughout the region. These former slaves often established small farming communities that would later lead to the clustering of house structures away from the current landowner's main dwelling (Orser 1985). These structures were frequently inhabited by multiple families from the end of the Civil War into the Depression Era of the twentieth century.

Georgia

The first non-native groups to populate Georgia were Spanish settlers who established forts along the coast in the mid-to-late sixteenth century (Coleman 1977). During the Spanish settlement period, explorers such as De Soto navigated the rivers that cross the modern-day boundaries of Georgia and South Carolina. During the early settlement years, the area surrounding the Savannah River was sparsely inhabited by indigenous populations and was thought to be a boundary between competing native groups. Spanish settlement and trade activities in Georgia increased pressures between the Cherokee and Creek who lived in the region.

The Spanish would not be the only Europeans to encroach on the native population in Georgia. British traders also settled in Georgia in an attempt to gain favor of the local native populations. The British sought partnerships between themselves and native peoples to strengthen trade relations and further ease the process of land acquisition. During the later decades of the 17th century, the British succeeded in their efforts to gain native group support while the Spanish lost favor among the native Georgians (Spalding and Coleman 1977).

In 1733, the British government granted a charter to James Oglethorpe for the settlement of lands in Georgia. Under the power of the British charter, Oglethorpe established a colony in what is now known as the city of Savannah. Savannah served as a port city for the movement of persons and

trade goods as well as a buffer between the English Carolina colonies and Spanish Florida. During the early years of settlement, English colonists successfully developed trade relations with local native populations. By 1736, Savannah's success led to the establishment of a British fort upriver on the Georgia side of the Savannah River (present day Augusta and Fort Gordon). By 1738, this British fort became a trading hub where native groups and European trappers came to exchange goods set for export in Savannah (Callahan 1980; Spalding and Coleman 1977).

During the French and Indian War, settlers who had moved away from the fort at Augusta sought the protection of the British government. Colonists sought to gain access to more westward lands and further push the buffer between themselves and native groups westward. In 1763 and 1773, treaties between native Georgian groups and the British government further provided access to these westward lands. The newly acquired "ceded lands" brought farmers from the colonies of Virginia and Carolina prior to the beginning of the Revolutionary War (Callahan 1980). Typically, these farmers focused on subsistence agriculture growing corn, wheat, rye, and other seasonal fruits and vegetables. Corn was one of the more flexible commodities that a farmer could cultivate, since it could be utilized to feed the family or livestock and it also could be exchanged between neighbors or at trading posts.

The increased amount of road construction provided agriculturalists with an improved avenue to transport crops to market. Farmsteads were often built along these road networks to increase ease of access for the movement of goods. After the cotton gin was invented, short-staple cotton became the primary commodity for many Georgia farmers. However, cotton agricultural practices quickly depleted the soil of nutrients. Through the late antebellum period, diminished soil conditions coupled with affordable land to the west provided the primer for increased westward mobility. In an effort to limit cost and building time, the houses and outbuildings were either torn down or relocated to newly-purchased western parcels of land. Additionally, farmers routinely constructed new structures for those that could not be reused from a previous location or occupation. The construction and relocation of structures provide a multitude of archaeological signatures throughout the region, creating a disturbance of site integrity with respect to single family land ownership.

After the Civil War, newly freed African-Americans found themselves as active participants in the southern agricultural system. African-American and the non-landholding white population routinely engaged in sharecropping. These tenant farmers rented land, homes, and tools from former plantation owners. Plantations were subdivided into small, rentable parcels of land. On these rented parcels of land, the sharecropper likely rented houses that once were the living spaces for persons formally held in bondage. The sharecropper population comprised nearly 50% of all farmers in Georgia from 1880 to 1930 (Dodd and Dodd 1973).

3.2.3 Cottage industry

Due to the varying degree of soil fertility, farmers often diversified their daily workload beyond planting crops and tending livestock. These additional activities bolstered their financial footing and often increased a farmer's economic stature (Sokoloff and Tchakerian 1997; Watson 1985). Based on this reality, when conducting research on farmsteads, it is important to also consider non-agricultural activities as a portion of farmstead lifeways.

During seasonal downtime, farmers often utilized materials at their disposal to engage in "cottage industry." Cottage industry in the South often included: gristmills and sawmills, naval stores, pottery and brick production, distilling, and blacksmithing (Boney 1984; Botwick and Joseph 2009). Due to the size of the operation and economic involvement, however, these activities and structures are often associated with plantations and fall outside of the scope of this project. But even the independent farmer was known to participate in small-scale cottage industries such as naval stores and blacksmithing. Naval stores encompass the materials that led to the production of tar and pitch, materials that could be extracted from vast regional pine forests. Pine forests ideal for the collection of turpentine, tar, and pitch and many production kilns are located in the Sandhills region. During the 1800s, the tar and pitch market expanded beyond sealants to lamp fuels and solvents (Outland 2004). Tar kilns were built approximately 30 ft in diameter and away from the main house activity area.

3.2.4 Typical farmstead components

House types

European settlement of the Southeast began as the first wave of immigrants arrived on the American shores. Since European activities in the region began in the sixteenth century, the discussion of house type should begin with the Colonial Period and conclude with the Progressive Era. For the purposes of this project, the Historic Period concludes about 1920 with government acquisition and formal establishment of many military installations.

These houses were often constructed without the use of a pre-set floor plan. Specifically, the farm house was built to suit the needs of the particular family that it would shelter. The primary house structure was typically a one-roomed structure. These structures were often built with hewn logs joined with half dovetailed notching or mortise-and-tenon joints (Figure 1). As the farm family grew the primary house structure would be expanded by joining additional rooms to the original house structure.

Figure 1. Dovetail notching, Great Smoky Mountains National Park, 2007
(Wikimedia Commons).



Farmsteads during the Colonial Period were dominated by one-room structures, that were often built with a square or rectangular floor plan and a hearth set to one end. The hearth was a multi-purpose structure that heated food and the home. A loft above the main living space was included in farmhouse designs to provide additional family living space. Access to the loft was either by use of a ladder or a boxed-in stairway. Two typical floor plans were built during the Colonial Period, and these structures were associated with the builder's architectural proxemics. Builders of English origin tended to construct homes 16 x 16 ft square and utilized sawn lumber. Scots-Irish homes were more rectangular at 16 x 20–24 ft and utilized felled logs. Regardless of the house design, the space between the sawn timber or log were often filled with "chinking" — often a mix of wattle, daub, rock, and wood. Farmers with sufficient financial resources also sided their houses with boards. The use of siding was an aesthetic feature that also increased insulation above that from chinking alone (Swaim 1978).

The earliest chimneys, often referred to as "stick and mud chimneys," were constructed by utilizing creek rocks or fieldstone. These stones served as the foundation of the chimney and provided strength both inside and outside of the farmhouse or cabin (Glassie 1969). The stone or rock was held together with red mud mortar past the throat. (The throat of the chimney is the channeled space that connects the firebox and the vertical chimney stack.) Above the throat, wooden slats were laid in a similar fashion to the exterior of the farmhouse walls and chinked with clay to seal the structure. Due to the materials utilized for construction, few chimneys remain to this day. Farmstead owners with sufficient access to stone likely built chimneys completely of stone. Complete stone chimneys were more rugged in construction which has allowed for higher numbers of these examples to persist into the present. Brick chimney construction would displace all other designs once local brick production was established (Holl 1982).

Farmstead house construction types are typically described as being one of the following: single-pen, double-pen, saddlebag, dogtrot, hall-and-parlor, or I-house. The single-pen log cabin was often constructed with dimensions of 16 x 16 ft (Figure 2). The front door of the cabin was located on the side away from the chimney gable (Vlach 1993, 1995). The chimney was located at one end of the gable, and was usually built with stones available in the vicinity of the structure (Glassie 1968, 1969). The single-

pen log house was often added to and expanded throughout its lifetime. To allow for additional space, a shed was often added at the gable end or to the side (Noble and Geib 1984). For additional living space, a second and often equal-sized structure was built adjoining the first, and the entire structure then became a double-pen, saddlebag, or dogtrot cabin type.

The double-pen house was a single-story, gable-end roof structure with two similar-size rooms side by side and two separate doors to each room (Holl 1982; Glassie 1968, 1969). The house was either initially constructed as a double-pen cabin, or a single-pen cabin was expanded from the non-chimney gable end. When viewed along the longitudinal axis, the house projected a uniform space with doors and windows being placed along the exterior as in the single-pen design (Figure 3). The double-pen was constructed with a dividing wall, either the old exterior wall or a new wall for houses initially built as a double-pen. To effectively heat both spaces, a second chimney—at the opposite end from the original chimney—was included in the double-pen (Noble and Geib 1984).

The saddlebag cabin was often likely a room added to an existing single-pen cabin (Figure 4). It had similar characteristics to the double-pen except for the location of the chimney (Holl 1982; Vlach 1993, 1995). Depending on the geographic location of the farmstead, access to stone may have been limited, which would preclude construction of a second chimney. The central chimney provided heating for the entire structure. The chimney width would create a gap between the two rooms which was often covered with boards for better insulation.

Another common house type was the dogtrot cabin. The dogtrot cabin appeared as if two single-pen cabins were built with a voided space left between the two structures with equal pens separated but joined together under one common gable roof, leaving an open area at the center (Figure 5). Period traveler's guides suggested that the space, and name, was a place where family animals were sheltered from adverse weather (Glassie 1969). In fact, the space between the two main structures provided a roofed outdoor area for household activities (Sauer 1920, 116). One main advantage of the dogtrot design was that the floor joist and sills need not be connected, which allowed two independent 16-ft structures to be connected simply by a non-load-bearing walkway or seating area.

Figure 2. Single-pen log house (Sizemore 1994; Noble and Geib 1984⁴).

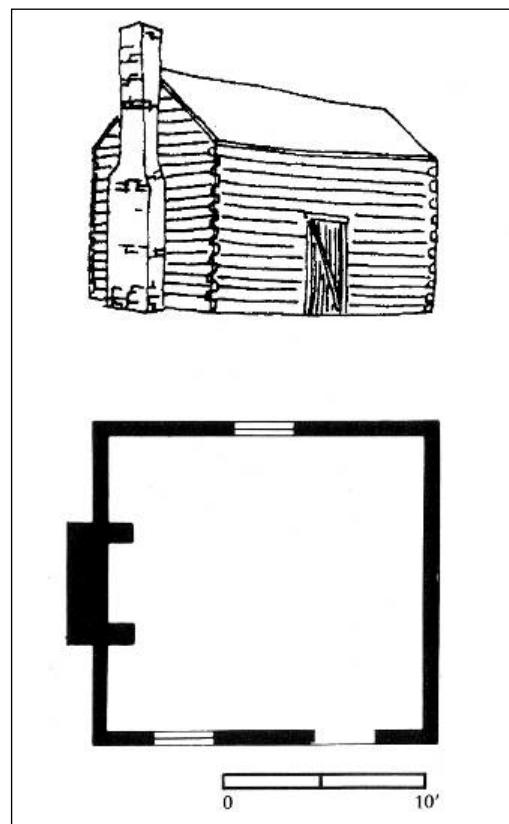
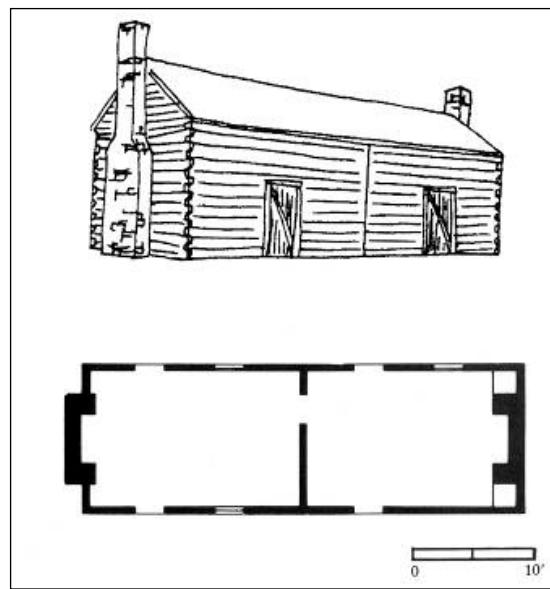


Figure 3. Double-pen log house (Sizemore 1994; Noble and Geib 1984).⁵



⁴ Drawing from Sizemore 1994, adapted from Doug Swaim, "North Carolina Folk Housing," in The Student Publication, Vol. 26, North Carolina State University School of Design 1978; floor plan from Noble and Geib 1984, reprinted with permission from *Wood, Brick, and Stone: The North American Settlement Landscape*, ©1984 by the University of Massachusetts Press.

⁵ ibid.

Figure 4. Saddlebag log house (Noble and Geib 1984).⁶

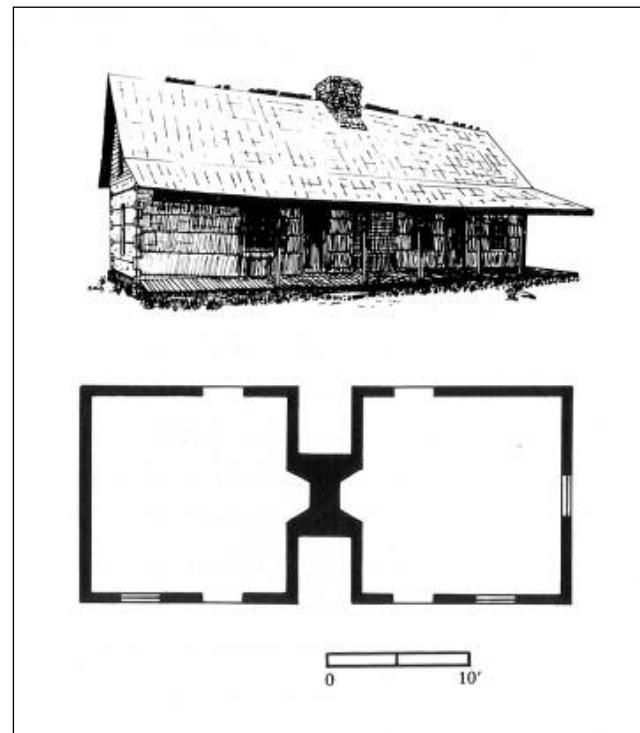
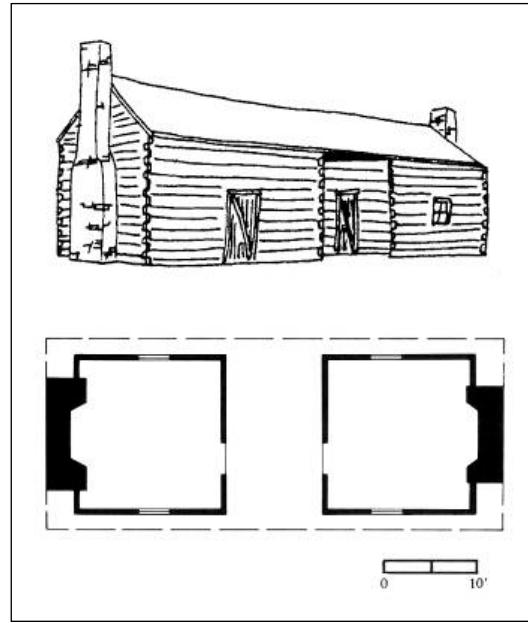


Figure 5. Dogtrot log house (Sizemore 1994; Noble and Geib 1984).⁷



⁶ Reprinted with permission from *Wood, Brick, and Stone: The North American Settlement Landscape*, ©1984 by the University of Massachusetts Press.

⁷ Drawing from Sizemore 1994, adapted from Doug Swaim, "North Carolina Folk Housing," in The Student Publication, Vol. 26, North Carolina State University School of Design 1978; floor plan from Noble and Geib 1984, reprinted with permission from *Wood, Brick, and Stone: The North American Settlement Landscape*, ©1984 by the University of Massachusetts Press.

The hall-and-parlor house style is a European house form that expanded the footprint of the main room on two sides (Figure 6). The square “hall” was entered directly from the outside and usually had a fireplace constructed on the end wall (Holl 1982; Vlach 1993, 1995). The hall was the location where most of the domestic activities took place. A parlor was located on the other side of the house. The parlor was where guests were entertained and also where the family slept. There may have been a fireplace on the end wall in the parlor. A boxed-in stairway was often built into the parlor, leading to an additional sleeping area (Swaim 1978, 33-34). Shed rooms were typically built to the rear of the house behind the hall and the parlor (Figure 7). A porch was often added to the front of the home for both appearance and improved outdoor seating area (Glassie 1969).

Figure 6. Hall-and-parlor house floor plan (Wikimedia Commons).

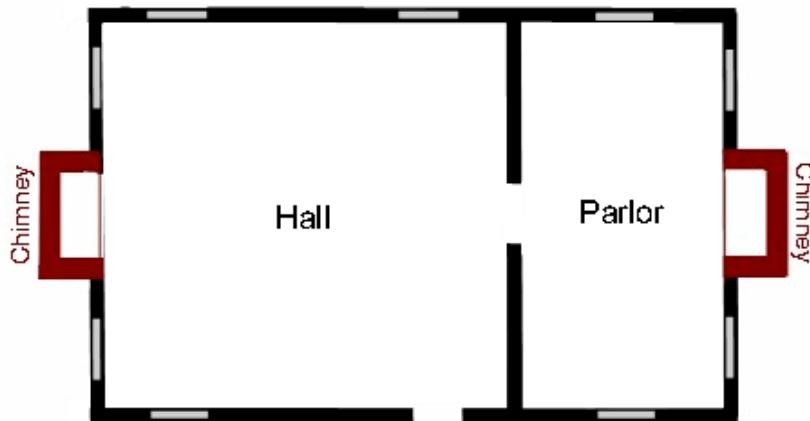


Figure 7. Hall-and-parlor house
(Charlotte-Mecklenburg Historic Landmarks Commission
<http://www.cmhp.org/S&Rs%20Alphabetical%20Order/Surveys&rMcAuleyRd.htm>).



German settlers brought with them proxemics for a three-room house floor plan, also known as a Quaker Plan house. The three-room floor plan houses were built with one large room, with or without a boxed-in stairway, flanked by two smaller square rooms (Figure 8). Chimneys were constructed at the gable ends which provided heat to either the one large or the two smaller rooms (Figure 9). German-built three-room houses tended to be constructed of log or brick, whereas English-coopted versions likely incorporated brick and stone. Three-room houses were well-suited for the Piedmont, since they could be built along hillsides which allowed for the construction of a semi-subterranean cellar. The front and back of these homes often included the typical shed room and front porch (Swaim 1978).

Figure 8. German three-room or Quaker Plan house floor plan
(used with permission of Preservation Greensboro Incorporated).

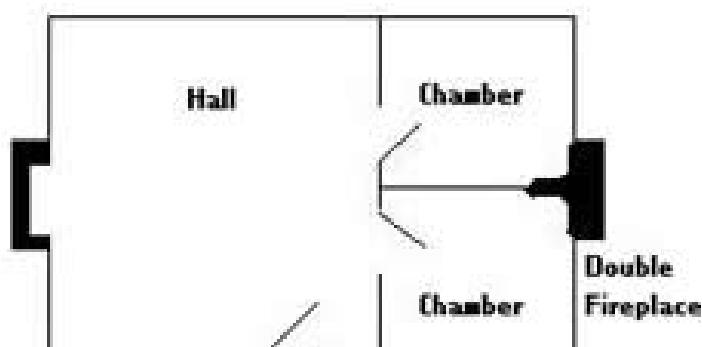
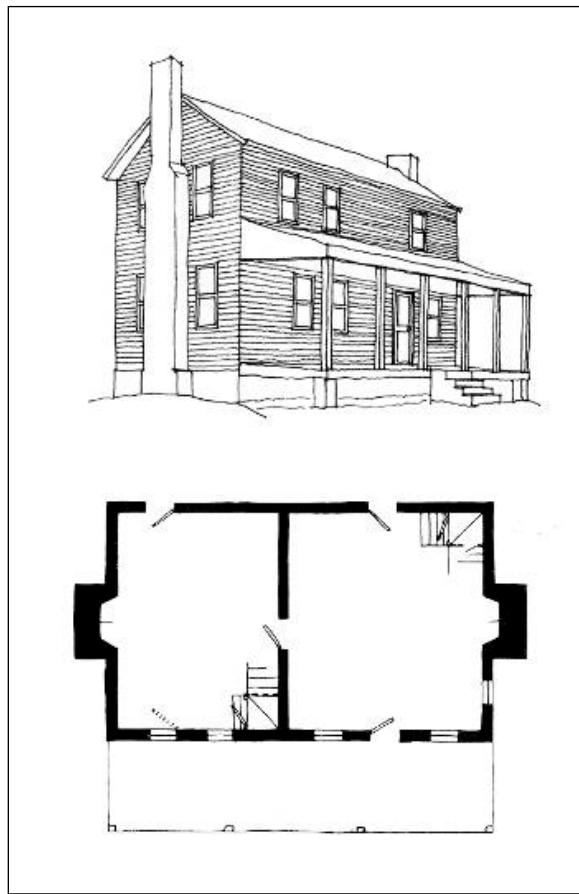


Figure 9. A 1786 Quaker Plan house in High Point, NC ((used with permission of Preservation Greensboro Incorporated)).



As the Renaissance and Georgian ideals spread across the Atlantic, so with them came a concept for house construction. During this period, the central-hallway I-house became a common folk house in the Eastern United States (Noble 1984, 52; Sauer 1920, 206). The front façade of the house was oriented so that it was fully visible from the road, which made it appear more impressive than its actual size (Figure 10). The second reason for its popularity was that the one-room depth facilitated good cross-ventilation to create a desirable indoor environment during hot and humid summers. I-houses were typically two rooms long, one room deep, and two stories tall. Most of the I-houses had rear additions to the back, while tall chimneys were built on one or both gable ends. Due to changes in agricultural activities and decreased economic resources after the Civil War, the two-story central hallway I-house was replaced by the one-story central hallway I-house and the Quarter Georgian house plan. These house designs eliminated spaces deemed excessive and returned the farmhouse to a family-functional place (Holl 1982; Vlach 1993, 1995).

Figure 10. I-house plan (Marshall 1981).



During the 1830s, numerous innovations occurred which allowed for easier construction of farmstead structures. One of the ways in which a farmer's building construction was made easier was with access to agricultural journals. These publications spread images and design information regarding the "proper house" (McMurry 1988). By 1832, farmhouse and other building design plans were actively being published which allowed for this information to become socially structured rather than a social bricolage (information learned over generations). In Chicago, a shortage of high-quality construction timber led to the innovation of "balloon-framed" structures (Condit 1960; Sprague 1981). Balloon framing utilizes long, continuous framing members (studs) that run from the sill plate to the top plate, with intermediate floor structures let into and nailed to them (Ching 1995). By the 1850s and 1860s, farmhouse floor plans throughout America, including the Southeast, would benefit from such frame construction innovations.

The innovators of framed construction made use of the development of machine-cut nails. Early modern machine-cuts nails (1790-1805) were first manufactured in the American Northeast about 1790, and distribution and use of these nails followed national trade routes (Philips 1989). Southern port cities, such as Charleston, SC, often had easier access to these Northeastern-manufactured materials than farmers of the upcountry. However, by 1815 the mechanisms to create machine-cut nails were further refined and made more widely available to regional and local blacksmiths throughout the United States (1815-1830; Philips 1989). Early modern machine-cut nails were displaced by machine-cut nails in 1830; however, both nail types were utilized interchangeably from the antebellum and into the postbellum periods (1830-1890). Wire nails (1890+) are light, round, steel wire of various gauges. The first wire-cut nails were unacceptable for home construction and were relegated to fastening boxes and crates. Further developments of the manufacturing process allowed wire nails to be forged with more rigid shafts. Mass-manufacturing industrial processes, coupled with increased material strength, allowed for acceptance of wire cut nails and by 1920, 92% of nails manufactured in America were wire cut (Loveday 1983).

The framed-wall innovation, paired with shifting social identities, also affected the farmhouse. The family farm had been a location in which all members residing on the land actively participated in daily economic activities. Shifting social identities spurred a division of labor where the men became responsible for tending the farm and associated economic activities, and the women became solely responsible for the family. "After about 1855, the ideal of the 'profitable farm wife' gave way to another image—that of a worker whose primary tasks more often consisted of services to the family—child nurture, cooking, sewing, cleaning—rather than participating in the farm's production for market" (McMurry 1988, 88).

Prior to this social shift, farmhouses were integrated spaces where the family shared one space. Development of framed-wall construction allowed for even the most remote farmstead to become large and have subdivided interior spaces. By the mid-1850s, farmhouse plans began to subdivide the structure into private and public spaces (Holl 1982). Public spaces were near the front of the house and likely consisted of the porch, front door and entrance, sitting room, and parlor. Private spaces were situated at the rear of the house and consisted of the kitchen and

bedrooms. The kitchen centered the private spaces and was often flanked by a bedroom and storage room. To accommodate the increase of defined social space, even the most modest farmhouse expanded to an approximate size range of 30 ft wide by 26 ft deep (Adams 1990; Beecher and Stowe 1869; McMurry 1988). Thus the footprint of a farmhouse constructed or altered after about 1850 would be comparable to that of a large barn or corncrib.

In 1859, Olmsted claimed that there was a “uniformity of design” in all country houses of Georgia and South Carolina, such that they could be divided in four categories:

“....the little log cabin, with a single room and a clay chimney. This represents the lowest class. Two log pens (rooms), and two back shed rooms, with a passage through the center and piazza in front; clay chimney at each end of the house. This is the second in the ascending scale. Two story house, built of pine boards, with four rooms in the body of the house, and two shed rooms behind; brick chimney at each end, piazza in the front, and passage through the center. This is the third class-men who are getting ‘well-to-do in the world.’ Large two story double house, eight rooms, chimney running up through the roof, giving a fireplace to each room; piazza or portico in front, and passage through the center. This completes the series....”

Kitchens are a space of particular interest to archaeologists and other scholars, since these spaces are often high-traffic areas with a heavy distribution of activities and materials, and they are also seen as gendered space. Kitchens are built within, attached to, and detached from historic farmsteads. In modest homes, such as the single-pen house, cooking often occurred at the home’s hearth. In this manner, dried firewood was preserved since one fuel source could be utilized for both heating the structure and cooking. In these homes, smoking of meats and storage of foodways likely occurred in separate outbuilding adjacent to the main home. Additionally, during the summer months, outbuildings were utilized for cooking and food preparation since heating within the home was less desired during hot summer months. Kitchens were built into homes with large floor plans, however. Dedicated rooms were constructed to the rear of these homes and coincided with the separation of gendered

work roles during the mid-nineteenth century. For these combined reasons, kitchens (while utilized by all farmstead locations) do not display distinctive positioning or size, and thus, kitchens are not a consideration for a typical farmstead layout.

The dwelling closest to the popular concept of elegant antebellum homes was the two-story structure with front columns and a double chimney. This style of architecture is given the title of “plantation plain.” This house type was essentially an elaborated I-house with a full-width front porch and one-story rear shed rooms (Figure 11). The characteristics of this design, popular in the south during the early nineteenth century, were a framed construction with gabled roof. Usually the foundations were constructed of unpainted rock. The interior often consisted of plastered walls with flush siding and chair rails. These houses reflected the last burst of handcrafted woodwork which otherwise largely ended sometime after the Revolutionary War. A porch constructed to the front of a home was meant as a sign of social status and was considered to be a function of separating the landowner from the rest of the local population (Joseph et al. 1991).

Figure 11. Plantation plain house type, Hampton County, South Carolina, 1987
(Wikimedia Commons).



In contrast to the two-story plantation plain house are the log homes which were often occupied by poor farmers or enslaved laborers.

Observation of Southern homes suggests that “logs were usually hewn but little; and, of course, as they are laid up, there will be wide interstices between them—which are increased by subsequent shrinking. These very commonly are not ‘chinked,’ or filled up in any way; nor is the wall lined on the inside...” (Kniffen and Glassie 1966). Often consisting of only one or two rooms, these cabins offered none of the isolated space that a planter might have in his home. Due to the overall construction of the dwelling, the walls and roof barely kept out the rain. At some plantations, these cabins were sheathed in wood siding, built from sawn lumber, or occasionally built of brick (Figure 12 and Figure 13).

Figure 12. Slave quarters at Smiths Plantation, Port Royal, South Carolina, 1862
(Wikimedia Commons).



Figure 13. Brick slave quarters, Hermitage Plantation, near Savannah, Georgia, 1870
(Wikimedia Commons).



Farmers who were between the richest and the poorest categories rarely included such separate spaces in their homes, either. There was little need for separate spaces due to the close proximity in which all people on the farm worked. “Farmers were likely to have interacted with other farmers and with the few slaves they might own. If slave owners, they probably worked together with their slaves in the field and were familiar with one another. Farmers had no reason to build a house which excluded them from the outside world because the outside world was not a threat” (Joseph et al. 1991).

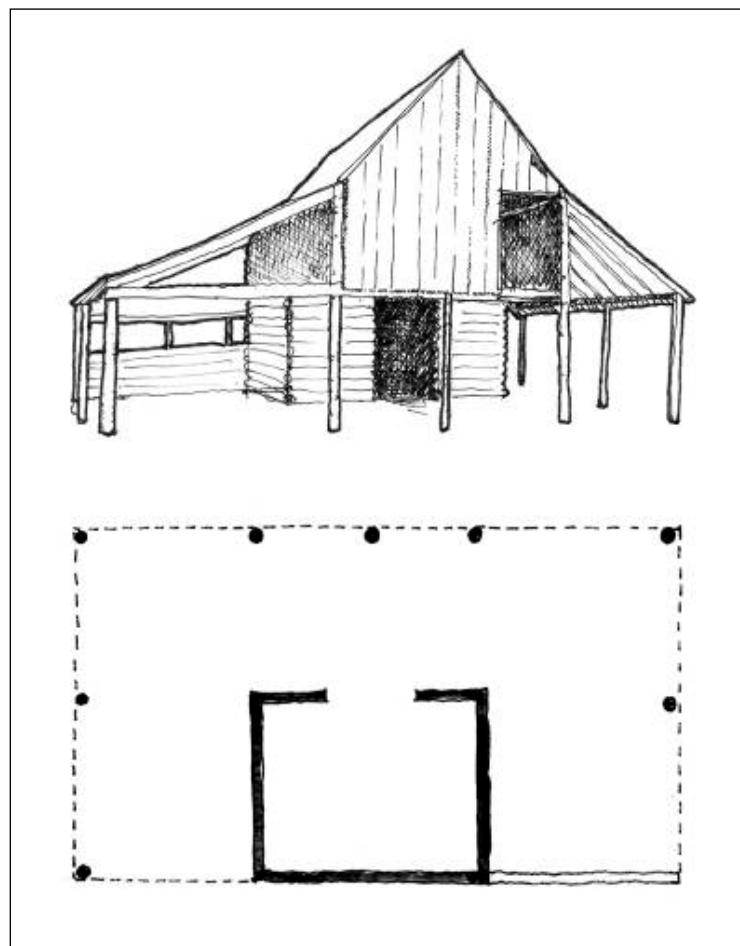
Outbuildings

While cabins were the residential space for the family, a farm could not function without numerous other structures (Glassie 1968, 1969; Vlach 1993). Structures which supported agricultural activities were often in proximity to the main farmhouse. These additional structures often held livestock, chickens, and other farm animals. Additionally, work spaces adjacent to the farmhouse provided a location in which daily work activities took place. These spaces often consisted of barns, corncribs, chicken coops, and workshops. These structures were often constructed with the same techniques and materials that comprised the main farm house.

Barn structures were often built on a basic box shape with square corners. The length and width of any barn varied from location to location, often due to access to available raw materials. Small-scale farmers often possessed enough materials for subsistence agricultural activities. To support this style of agriculture, the farmer often owned a horse(s), a yoke of oxen, a milk cow, rock sledge, and a wagon.

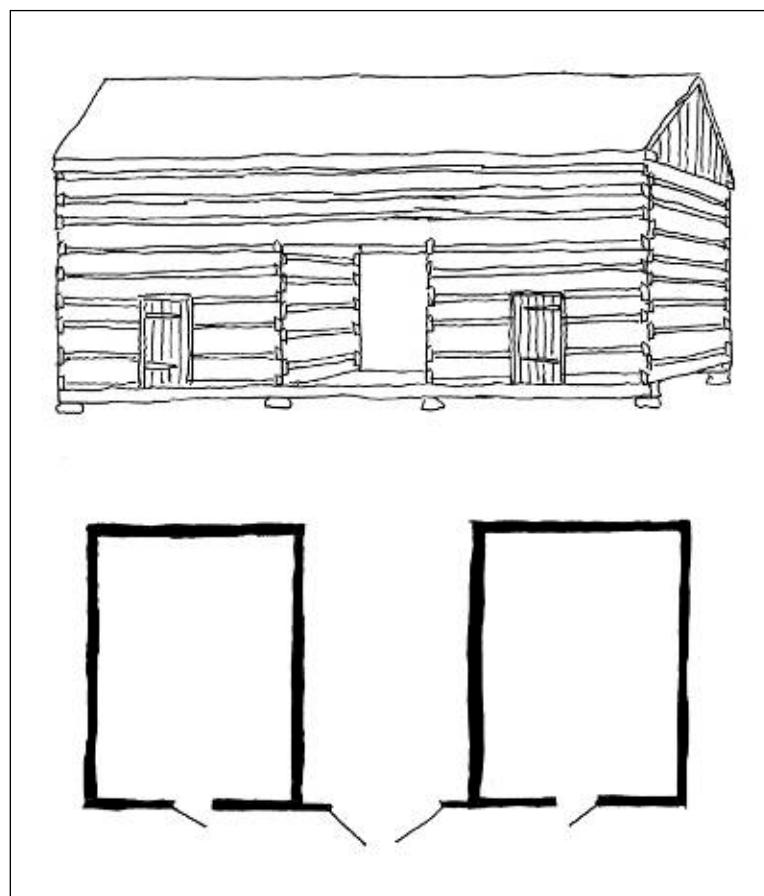
The single-crib barn was the simplest of historic period barn designs. Single-crib barns were built with a wide door at one end (Kniffen 2005; Marshall and Vlach 1973; Schimmer and Noble 1984). Within the interior of the single-crib barn, there were typically one or two stalls in which materials or livestock could be housed. In an effort to provide additional space, a lean-to roof was often constructed to the side, or sides, of the barn (Figure 14). The lean-to roof provided shelter for wagons or other work activities, such as a lathe, iron smithing, or workbench. The lean-to roof was attached to the wall of the barn and then to wooden posts sunk in the ground.

Figure 14. Single-crib barn (ERDC-CERL barn sketch of Sizemore 1994, page 118; original photo courtesy of The Arkansas Historic Preservation Program; floor plan by ERDC-CERL).



The double-crib barn provided the farmer more covered space. The double-crib barn was often described as being two single-crib barns that shared one single roof. The two single-crib barns were set approximately 10 ft away from one another with a dirt floor in the middle (Montell 1976; Schimmer 1984). Interior stalls were built so that their openings provided access into this 10 ft wide interior space. Additionally, this 10-ft space provided a covered place in which a wagon or other farm implement could be stored. Above the stalls, a loft was often included in which hay could be stored to feed the housed livestock. Much like the single-crib barn, lean-to roofs were often constructed along the exterior to provide additional working space (Figure 15).

Figure 15. Double-crib barn (Noble et al. 1995 courtesy of Ohio University Press).⁸



The next development was the four-crib barn. These bigger structures were more typical of large farmsteads where activity likely extended beyond subsistence agricultural activities. Four-crib barns consisted of four single-crib barns in the corners of the unified structure (Marshall and Vlach 1973; Montell 1976; Schimmer 1984). Each of the four stall areas were separated by a cross-shaped passageway that converged at the center of the structure. Within the four-crib barn, the farmer was able to house livestock, farming implements, and perhaps an indoor workshop. One large roof covered the entire structure and provided a loft space which could be used to store hay and other materials that needed to be protected from inclement weather (Figure 16). Variations on this structure were numerous and were based on the exact need of the farmer.

⁸ Taken from *Barns of the Midwest*, (www.ohioswallow.com/Barns+Of+The+Midwest) edited by Allen G. Noble and Hubert G.H. Wilhelm. ©1995, Ohio University Press.

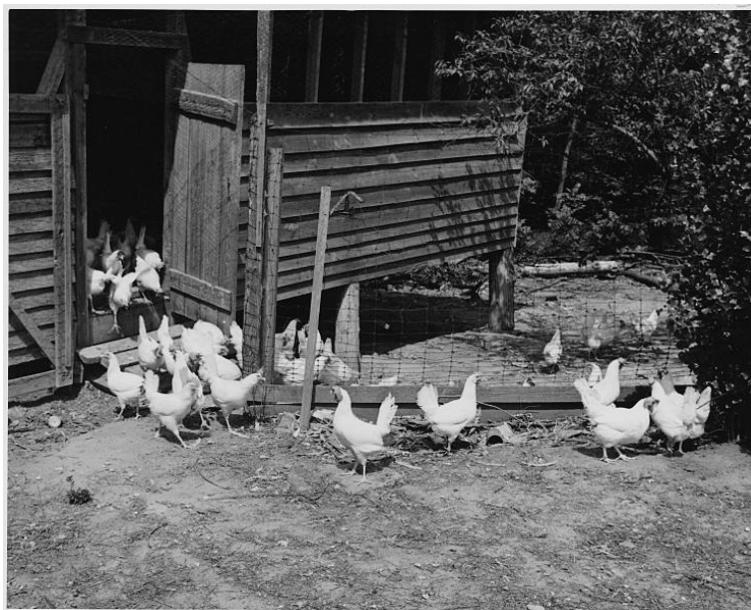
Figure 16. Four-crib barn. (<http://www.farmbuildingguide.org/cribbarns.html>).



Farmers also constructed structures to house pigs and chickens (Vlach 1993). Hogs were held within hog pens that were constructed from logs. Inside the hog pen, a hog house was built. The intent of the hog house was to provide night-time shelter and to protect the hogs from wild animals, such as wolves. These structures were built large enough to house the potential number of hogs that the farmer might possess at any given moment.

The chicken house was constructed with the intent to protect the birds from wild animals. Chicken houses were smaller than the hog house due to the size of the animal being housed. To discourage wild animals from entering, the walls of the chicken house would have been tightly constructed to prevent the entrance of unwanted predators (Figure 17). Chicken house walls often included chinking much like the walls of the farm house. A chicken house consisted of a pole roost, egg and hatching nest, and a feeding trough. A pole roost was likely a wooden structure set on an angle from the center of the floor to the side wall so that chickens could gather and rest.

Figure 17. Chicken coop, Newberry County, South Carolina, 1941 (Wikimedia Commons).



Finally, workshops were an important space for farmers because they provided a covered space to conduct various activities. These workshops were either established under the lean-to roof or were freestanding structures. Freestanding workshops were constructed similar to the main farmhouse, but with less refinement of the log walls. Workshops were built with doors so that the farmer could bring any farm item into the space to perform repairs. The archaeological signature of a workshop would be the post-in-ground walls and heavily compacted soil that would differ from normal or lightly compacted materials found throughout the farm yard.

3.2.5 Fences

Fences were an element of the farmstead landscape which should not be overlooked. Fences were part of the built environment and assisted in separating the wild from the domesticated animals. Farmers taming the frontier lands or creating agricultural lands from wooded areas often had a multitude of timber to remove (Danhof 1944; Hewes and Jung 1981; Otto 1986). These timbers often included small trees and saplings too small for house or workspace construction, but they could be utilized in the construction of fences (Bealer and Ellis 1978; Kerridge 1969). These small timbers were built into worm- or snake-like fencing around the workspace or agricultural fields.

Because fences were constructed of wooden materials, they were subject to deterioration over time. To slow the process, farmers often attempted to select the best materials for construction. “The best timber for post, in order of its durability is red cedar, yellow locust, black walnut, white oak, and chestnut” (Adams 1990). Timber available in any particular region would have been a determining factor as to how long a fence would feasibly last. Black locust is resistant to termites and decay from moisture; therefore, a black locust post could potentially last for upwards of 100 yr. Cedar also provided another viable long-term solution to fence posts. White oak, chestnut oak, and chestnut would last 30–40 yr if the tree was prepared at the correct time of the year. Pine was only utilized as a last resort. Dry pine would only be viable for a few years, unless the heart of the tree was harvested in the approved manner. The heart of a pine tree is laden with resin which allows a post made of this material to last substantially longer than a standard fallen pine tree.

In addition to selecting materials that would likely deteriorate more slowly, preventative measures were taken to further thwart wood rot. In farm journal publications, landowners were instructed to backfill their postholes with rocks, ashes, charcoal, or lime. In the event that fence posts have not been preserved into the present, these preventive backfill measures will likely leave a greater archaeological signature when compared to a wooden post inserted directly in the soil.

Fences along the frontier and farmstead properties tended to follow the natural topography of the local area. These fences established a detailed outline of the property and provided delineation between daily and agricultural activities (Adams 1990; Yamin 1996). Fences often encompassed farmhouses, outlying lots, barns, and workshops, while providing separation from agricultural spaces and animal pens. Additionally, these fences provided protection for the farmer and their livestock from the wild environment and from unwanted human or animal visitors.

The concept of protecting the farm through the use of a fence is expressed by the statement, “If there is any one thing more than another which is a source of constant anxiety and unremitting care to the farmer, it is the erection of suitable fences for enclosing his own grounds for the purpose of excluding lawless intruders, or keeping his own animals within proper bounds” (Todd 1860, 57). Historical documents and court records have the

potential to display the ideological importance of a fence since the fence outwardly displayed the ownership of a parcel of land, providing visible legal rights over property.

During the nineteenth century, as the number of farms increased throughout the American South, the importance of fence construction can be viewed through documentary evidence. The *Young Farmer's Manual* dedicated 170 pages of its total 459 pages to fence construction (Todd 1860). Additional fence construction discussions can be found in the following references: Adams 1990; Hart and Mather 1954, 1957; Jackson 1954; Leechman 1953; Noble 1984; and Zelinsky 1959.

Snake or zigzag fences

Snake or zigzag fences consisted of numerous small split rails stacked in a zigzag pattern (Danhof 1944). These fences were often built to a height of 4 ft or more to keep out unwanted wild animals. Stacking the timber to this height also provided additional support for the overall structure, since the weight of the timber aided in keeping all materials in place. At the fence corner, the timbers were stacked in an alternating fashion (Figure 18). While alternate stacking created a voided space between timber rows, the voided space was still small enough so that hogs and cattle could not exit. One of the primary reasons the farm space and the agricultural fields needed separation was so that the animals would not destroy seasonal crops. But these fences were not built with additional hardware, which meant they were easy to disassemble and move so that the fields could be expanded. The zigzag pattern also meant that a portion of the field at the corners could not be plowed. This space would routinely become overgrown with weeds and became a friendly habitat for small game which could be included in the family diet (Adams 1990).

Figure 18. Snake fence, 2007 (Wikimedia Commons).



Post and rail fences

Farmers also sought more permanent fence construction methods. To this end, they utilized the post and rail construction techniques. The post and rail design used less lumber for the overall construction; however, these fences were more time-intensive to erect (Danhof 1944). Posts were sunk in the ground, approximately 8–10 ft apart. Each post often had 2–3 mortise slots bored or chiseled into the body. Horizontal rails, 8–10 ft in width, were then inserted in the mortise slot (Figure 19).

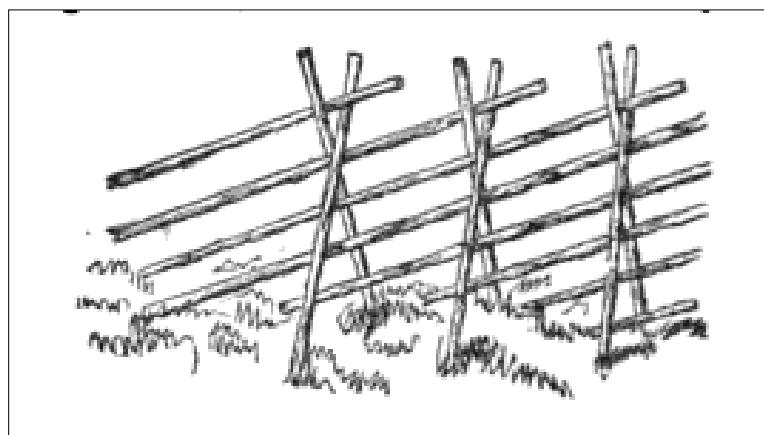
Figure 19. Split-rail fence, 1938 (National Agricultural Laboratory).



Pole fences

Pole fences are a third typical design for fence construction. The previously mentioned fences were often ineffective in keeping small wild animals out of the family garden or chicken coop. A pole fence is sturdy and nearly solid. These structures consist of poles 2–3 in. in diameter and 6–8 ft in length. Each pole was laid at a 45-degree incline and supported by two vertical posts (Figure 20). To improve the overall stability of the structure, pole fences were built in a curvilinear design rather than with straight sides. The beginning and the end of the fence would overlap, creating the entrance of the structure. Pole fences were time-consuming to construct and took a large amount of natural resources. As resources become scarce and when nails became more accessible, the pole fence was displaced by the vertical paling fence.

Figure 20. Pole fence (Blakelee 1889).



Paling fences

Paling fences are often associated with frontier and mountain farmsteads. Due to the long-term construction interest, weather- and rot-resistant timbers were highly sought after. Fences were then built by utilizing roughly hewn or split posts and rails for split palings. Use of hewn or split posts and rails was due to the lack of sawmills in the local area or associated high cost of these facilities and their products. Paling fences were easily manufactured with tools which a farmer routinely maintained: ax and froe, and glut and maul. Paling fences were most often constructed in the front or back yards of the main house structure (Figure 21).

Figure 21. Paling fence, 1996 (Library of Congress).



3.2.6 Farmstead layout

On the farmstead, the spatial layout between the house and associated outbuildings are often based on local geography, proximity to roads, and access to flowing waterways. The placement of farm structures was a dynamic system that changed over time due to the social factors of any particular period. The persons who built farm structures on the landscape did so through interpretation of period vernacular design coupled with an understanding of construction techniques. While a farmer may have attempted to build a structure with a particular local or national design in mind, the size and shape of the actual structure may vary from the intended design based on knowledge of construction techniques or materials available. These construction episodes provide a view into the social trends during any period of occupation.

The layout of the farmstead is often considered to be done in a manner in that provided ease of function. That is to say, structures were built in locations that created ideal flow from one structure to another to eliminate inefficiencies. “Convenience would dictate that the buildings should be located as near the middle of the farm as is practicable” (Todd 1860, 28). Where possible, structures that accommodated activities with high workflows were located closest to the farmhouse, and less intensive activities and the associated structures were often constructed further away from the main house. Thus, the larger barn or corn crib would likely be situated farthest from the house since materials stored in these structures were often intended for field use and not for home use.

Location of cabin or farmhouse

The actual location of the farmhouse or cabin is an area open to scholarly debate. Authors have suggested that the main house structure should either be situated near a road or away from a road, based on differing cultural perspectives. The former perspective suggested that the house should be constructed near a road for ease of access to neighbors or nearby formal settlements. “Americans almost universally will erect buildings along the highway, even when such a location would place them entirely on one side of the farm” (Todd 1860, 28). In addition to the house being located near a road, a similar observation about the entire farmstead stated, “The house is commonly placed next to the road, the barn 100 feet away from it in almost any direction, and other buildings fall into any space which happens to be open at the time of their making” (Waugh 1914, 145). But contrary to the first perspective was the thought that a house built far from a road presented “less distraction by gossip” and that the greater distance allowed for farmers to be “more inclined toward productive task” (Adams 1990). This position was later clarified to indicate that farmhouses “ought to occupy a position *easily accessible* to the other buildings and fields, and yet be within a *convenient distance* of the highway” (Adams 1990, emphasis added).

The geographic location of the farmstead also had a bearing on where a cabin would be situated. One of the major distinctions between the farmsteads of the Upland (Piedmont) and Lowland (Coastal) South is that in the uplands, farmsteads tended to be located on the main road (Newton 1974). Newton and others suggested that cabin positioning in the Upland South was based on social convention, and cabins in the Lowland South were built away from roads due to the type of agriculture being practiced. Upland farmers tended to relocate toward the Ohio Valley and westward, and thus houses in the new settlement areas were also built closer to roads. Farmers of the Lowland South farmers often moved south and west toward Texas, taking with them the practice of constructing houses away from nearby roads.

The likely middle ground between these diverse perspectives suggested that “it was best to locate the house back 100 or 200 feet from the road” (Roberts 1907, 82). The Roberts citation was written in past tense and is likely a commentary on where houses were actually situated rather than a social ideal presented by either of the former writings. Additional early twentieth-century research suggested that a key consideration for a farmer

was to “plan the whole area so that it may be effectively and economically administered, first thing was to fix an administrative center” (Waugh 1914).

A large portion of southern agricultural history is indelibly associated with the institution of slavery. The supervision of enslaved labor was an integral part of how a plantation or farmstead was established. The construction of the necessary structures was often done in a “nucleated” pattern.

Nucleated landscape layouts meant that all structures were positioned in close proximity to one another. The main point to this layout design is social control over enslaved labor. Thus, all structures (to include the master’s cabin) were built within one particular space.

Nucleated settlement patterns were not the only means to construct a farmstead in the American Southeast. Marlessa Gray (1983) postulates two other farmstead layouts, semi-nucleated and conglomerate settlement patterns. According to Gray, the semi-nucleated settlement pattern is similar to the nucleated settlement pattern, but the built environment is slightly more spread out. While the semi-nucleated pattern provides little differences from nucleated patterns, the conglomerate settlement pattern provides a different view to orient research. Spatial organization must be considered when employing the theory of conglomerate settlement pattern. Within the conglomerate settlement pattern, structures are often divided into multiple clusters which produce satellite communities. These cluster settlements are most often at great distances from other clusters and tend to be separated based on daily work activities. The conglomerate settlement pattern is most often discovered in conjunction with plantation or tenant agriculture. Due to the separation between clusters of structures, the conglomerate settlement pattern projects the same appearance as single family or nucleated farmsteads. As a result of being separated by great distances, these satellite communities often possess all of the structures that were built at the main plantation or farmstead site. Thus, if local and regional context is not considered, a site may present all of the cultural characteristics of a farmstead but actually have been connected to a large agricultural system such as a plantation.

Segregation of space by use

Throughout the American South, there was not one sole settlement pattern which can define the region. Thus, research regarding regional settlement patterns must include information for the subsistence farmer, the small-

scale agriculturalist, and the plantation owner. Linda Worthy (1983), drawing from Weaver and Doster, Smith et al., Newton, and Hart, provided the following list of attributes for southern farmstead settlements.

1. The random clustering of domestic and service operations usually situated on hilltops or other prominent points. The relationship among structures are generally idiosyncratic and a factor of differing opinions regarding “convenience.”
2. Buildings have individual functions, i.e., dwelling, storehouse, smokehouse, livestock pen: only rarely are function combined.
3. Dwelling, well privies, storage sheds, and chicken houses are placed in close proximity as structures associated with household activities. The house yard is also frequently swept, further distinguishing this space.
4. Barns, animal pens, equipment buildings, forges, and other agricultural activities areas are situated as a slight distance from the domestic area. The approach to these structures is usually around, rather than through, the domestic yard.
5. The house faces the probable path of approach and is shaded by trees.
6. Fields are irregularly arranged and follow topography. Fields are sited to make best use of arable lands, while farms are placed to provide access to fields.

Stine (1997) drew from Trewrtha (1948), Glassie (1975), Kniffen (1965), and others to note that southern farm settlement was less structured than farms in other regions of the United States, and featured fewer and less substantial structures. Stine characterized the settlement form of these farms as “loosely dispersed,” and further suggested that open yard areas were used for a number of activities on southern up-country (Piedmont) farms. Further ethnographic research of North Carolina Piedmont farming communities revealed that both interior and exterior structure spaces were multifunctional, which adds to the complexity of the farmstead.

The beforementioned authors recognize that farmstead featured segregated domestic and agricultural areas. In a study of folk housing in Middle Virginia, Henry Glassie (1975) observes that “the old farm had two centers, the house and the barn, around which smaller dependencies were dropped. Beside the house are the outbuildings needed by the woman in order to get food on the table; beside the barn are the outbuildings needed by the man to keep the cattle fat.” The importance of a male lead for production activities constructs a level of control and social hierarchy on

the farmstead. Men controlled actions and products which contributed to farmstead capital, while women controlled household production (Adams 1990). The division between male and female labor reflects a division in management and production on the farmstead.

The importance of segregated workspaces provides valuable clues as to daily activities and the proximately which these activities might have in relation to structures. An understanding of these duties will help to understand the spatial layout and inform archaeological survey. The separation of work spaces can be traced to the Victorian ideology. Within Victorian ideology, it was important to separate the purity of the household from the sin of the working world. Workspace construction on the farmstead landscape was done to perpetuate these ideologies. The agricultural space, such as the smokehouse, was a part of the sins of daily life and needed a space away from the purity, the house. Thus, the workspaces were separated from the living quarters rather than men being segregated from women.

Relationship of residents to the landscape

In an additional view of how ideology played a role in the construction of daily living space. Joseph et al. (1991) suggested that farmers altered the landscape surrounding the farmhouse in an effort to control nature. Farmers planted vegetation along entrances to any parcel of land as an outward expression of their control over nature. Archaeological investigations at a small farmstead in Spartanburg, South Carolina, postulates that the landowner intentionally planted oak trees in the shape of an arc and that stone walls were built in the rear of the house in order to create a border between the house yard and farm fields (Joseph et al. 1991). The authors of this archaeological site reports suggest that the construction of divided space created and oasis between domestic activities and agricultural activities. When present, building materials or altered landscapes which construct a division of space can provide information regarding the locus for daily house activities and agricultural activities.

To date, much of the archaeological research has focused on land occupied by rice or cotton plantations and the owners. What is being missed by that research is the interaction between farmstead occupants (European and African descendants), both pre- and post-Civil War. Research at these rice plantations has provided the readership with a view of how “orderly” and

“classical” the landscape was for the southern landed gentry. While the perspective of the southern plantation owner is an important one, it excludes the history of the southern farmer, slaveholder or not. By omitting the relationship of the farmer from history, one glosses over the agricultural consequences of their actions and the materials they left behind.

Southern agriculturalists practiced a style of farming which was not long-term settlement but rather volatile in term. Farmers established settlement patterns in order to make best use of the fertile soils. These soils were quickly exhausted and when the earth no longer allowed for viable agricultural activities, the land was sold and the farmer moved westward. Due to this agricultural volatility, farmers built houses with cheap designs and materials. To limit the amount of material required at the next residence, the house structure was often impermanently constructed. After the Civil War and the population dash away from the economically devastated south, lands for westward expansion were less available and often less fertile than southeastern lands. It was during this period that farmers in the American South began more stable systems of agriculture. The ephemeral nature of many agrarian sites, most notably slave cabins and tenant houses, has been the point of discussion for many historic archaeologists. Due to the ephemeral nature of many of the farmstead complexes, archaeologists and historians must lean on surviving structures to provide insights about buried remains. These remaining sites are often protected by trees, and since these areas are not viable for agricultural activities, the soils are less disturbed and retain intact archaeological features.

3.3 Present-day military installation context

Today, the military continues to have an important mission to accomplish, which may negatively impact known and unidentified land resources to aid in that mission. The historical archaeological potential on military installations has not yet been thoroughly explored. The modern-day histories of installations in North Carolina, South Carolina, and Georgia are all relatively similar. Due to the influx of war-fighting efforts during major conflict, many training facilities in the American South were established about the time of World War I. When property was acquired to create these military training installations, residents were relocated to areas outside of the military training lands. Due to this relocation, the parcel of land that was once occupied sits as a time capsule linked to the

moment agricultural activities on it ceased. The structures that once stood were either torn down or allowed to deteriorate over time. Many of these sites have been identified through Phase I archaeological testing; however, funds that would allow for more extensive research are often limited. Additionally, the extensive training which occurred prior to many heritage protection laws and regulation has likely negatively impacted these archaeological remains. Until land resources are identified as eligible to the NRHP and have the proper associated protection, they are conceivably at risk for further deterioration and potential loss.

In the twenty-first century, US military training requirements have changed to address altered battlefield tactics. Additionally, some of the twentieth-century military installations have been closed or repurposed, relocating soldiers to larger bases such as Fort Bragg, NC; Fort Jackson, SC; and Fort Benning, GA. The built environment on military installations is continually undergoing modernization but tends not to encroach on training lands. However, the status of training lands is affected by military units throughout any given training cycle because soldiers train on these lands in preparation for combat deployments. Soldier's equipment also is under constant modernization and for a military unit to gain proficiency, soldiers engage in exercises that included digging fighting positions, firing weapons, and driving vehicles across training lands.

Obviously many of these military activities have adversely impacted some historic archaeological farmstead sites. These impacts include military debris being left on the site surface; excavation of fighting positions and other entrenchments within the site boundaries; bulldozing and/or earth moving within the site boundaries; and demolition or bulldozing of structural features and foundations. While some historical sites have been severely impacted (75% or more of the site impacted), others show little or no evidence of impact (25% or less of the site impacted). In addition, military and civilian personnel and members of the surrounding communities actively use military training lands for recreational purposes. Hunting and fishing are common activities that occur on many installations. It is likely some of the impacts to the historical farmstead sites have come from people conducting recreational activities. It is expected these impacts are in the form of trash and other debris being left on the sites, and the removal or displacement of surface artifacts at a site, especially interesting items such as intact bottles.

3.4 Context summary

Previous research at Fort Leonard Wood suggested that area farmsteads displayed similarities based on house design and other operational architectural designs. Likewise, the results of this research project suggest that farmsteads in the American South have differences and variations in design. These variations can be rectified when temporal specificity is applied to the area of interest. Based on centuries of occupation (rather than decades as seen at Fort Leonard Wood), installation managers in the South should view their site inventory by clusters of date ranges.

Clustering sites by occupation dates will convey farmstead similarities rather than project the morass of variations. Thus, Revolutionary-era sites are compared to other similar sites rather than being clustered with antebellum or postbellum structures. Sites of similar occupation date ranges will present similar architectural designs, site layout, and artifact typologies.

The historic context provides information supporting the thesis that there are typical farmstead designs, with slight variations based on specific region of interest. The typical farmstead included a house constructed from one of the following architectural designs: single-pen, double-pen, saddlebag, dogtrot, hall-and-parlor, or I-house. The single-pen, double-pen, saddlebag, dogtrot house designs should be clustered into one architectural typology in view of the fact that the basis for these structures is the single-pen house. A modest farmhouse would typically begin as a single-pen structure but often expanded into one of the other three designs as material or financial resources allowed. Single-pen farmstead construction is the most prevalent housing structure discovered during the course of this research.

Architectural dimensions of farmhouses possess the potential to correlate with social identity on a regional level. For example, English hall-and-parlor floor plans are believed to be more-square in design (approximately 16 x 16 ft) while Scots-Irish I-house designs were more rectangular (approximately 16 x 20 or 24 ft). Hall-and-parlor and I-house designs are the typical house forms utilized in areas dominated by the beforementioned social groups. Installations with a high density of one social group will therefore likely display larger numbers of a particular architectural design, and that design will serve as the “typical” for an installation land manager’s specific location.

Farmstead layout also displayed numerous typical elements. The main house structure was most often built facing a trail or road that would connect the farm to neighboring farmsteads or formal settlements. This positioning allowed for security again potential hostile native groups as well as provided means to communicate with other agriculturalists. In addition to house, outbuildings were common support facilities on the farmstead. The most common outbuildings were barns, pens, and wells. These structures were most often constructed on the back side of the home and aided in keeping unwanted visitors from gaining access to these facilities. Fences were also typically constructed on farmsteads to secure outbuildings, family gardens, and crops from these unwanted visitors.

4 Field Testing

Field work was conducted at Fort Bragg in May 2013 by Carey Baxter and Megan Tooker of ERDC-CERL. Principle support at Fort Bragg was supplied by Dr. Linda Carnes-McNaughton, RPA, Program Archaeologist and Curator at Fort Bragg; she was assisted by Jonathan R. Schleier, GIS Specialist/Archaeologist.

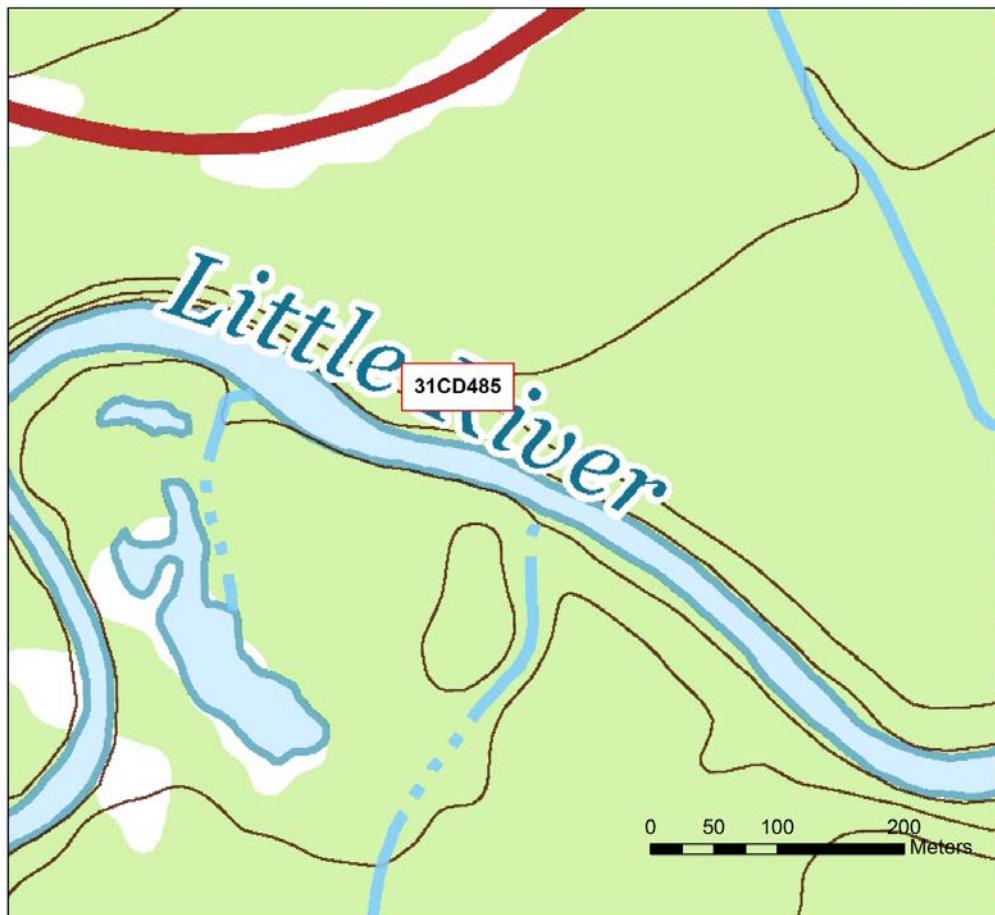
4.1 Site 31CD485 results

Site 31CD485 was first reported in the 1997 Phase I report, "Archaeological Survey of 4000 Acres on the Lower Little River, Cumberland, Hoke and Moore Counties, Fort Bragg, North Carolina" (Clement et al 1997). Findings from that report are provided in the subsection below.

4.1.1 Original Phase I results

Site 31CD485 is located near the northern bank of the Little River (Figure 22). A modern, one-lane dirt track is located on the southwest portion of the site between the site and the river bank. The high point of the site is near the chimney fall, with the elevation sloping downward very gradually in all directions from this area and the elevation drop-off becoming steeper in the immediate area of the river bank. A natural spring head is located approximately 85 m southeast of the center of the site. The site is wooded with deciduous trees, but Fort Bragg has maintained the site by removing undergrowth from the immediate area of many of the features.

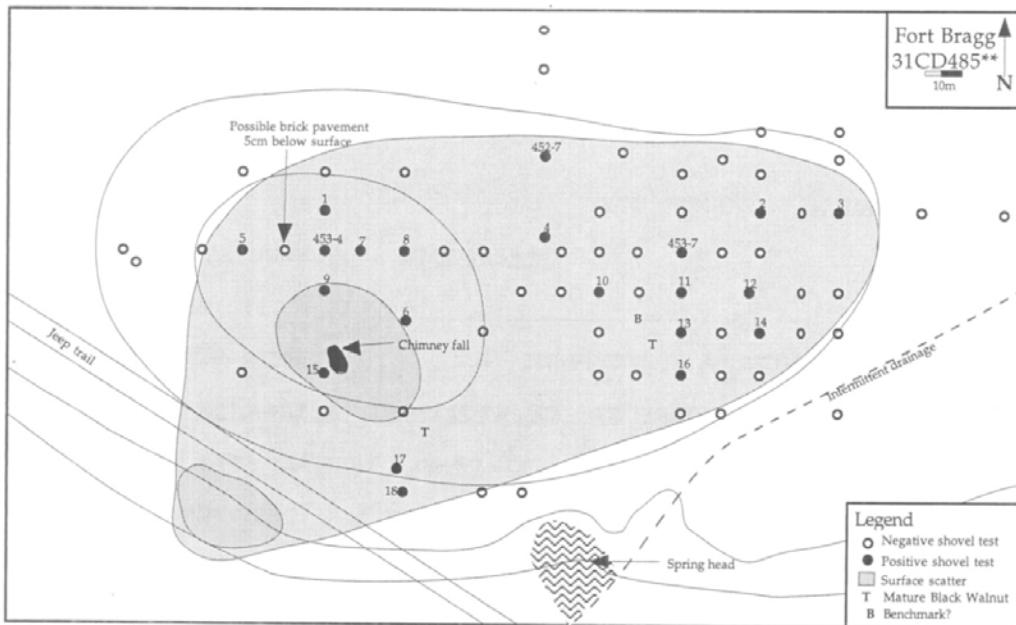
Figure 22. Site 31CD485 on 2013 USGS 7.5 quadrangle maps (www.nationalmap.gov).



The site was originally identified by the presence of a small grove of mature black walnut trees and a brick chimney fall. Apart from the chimney fall, no other cultural features were mapped as part of the original investigation's site map (Figure 23). The text of the 1997 report indicates that shovel tests on the west side of the site had higher amounts of brick rubble that might indicate an outbuilding, but this area was not indicated on the site map. The spring was mapped, but no cultural remains were identified in that area. Fifty-five shovel tests were excavated on the site at 10-m intervals to determine site boundaries and to recover temporally distinctive artifacts. The shovel tests were concentrated north and east of the chimney fall; the immediate vicinity of the chimney fall was not heavily tested to avoid disturbing the center of the site. Artifacts were recovered from 21 of the shovel tests with the most distant positive shovel test located more than 140 m ENE from the chimney fall. One shovel test, located approximately 33 m NNW from the chimney fall was abandoned

when dense brick was encountered approximately 5 cm below the ground surface. This shovel test is not counted as one of the 21 positive shovel tests.

Figure 23. Phase I site map of Site 31CD485 (Clement et al. 1997, p 110).



Ceramic types recovered from the surface and from positive shovel tests include undecorated whiteware, lusterware, green-edge whiteware, hand-painted pearlware, blue transfer print, blue-edge whiteware, black transfer print, cream-colored sherds, undecorated pearlware, annular, and yellow ware. Glass types include window glass as well as aqua, dark green, clear, and light green bottle and table glass. The majority of nails recovered from the site were machine cut but one wire nail was also recovered. At least one brick encountered on site was reported to be handmade. In total, the artifact assemblage dates to the middle nineteenth century. Pearlware and dark green bottle glass were not common (6 of 83 artifacts recovered); higher frequencies of these artifact types would indicate an early nineteenth-century occupation. Artifact types typical of late nineteenth century or early twentieth century occupation were not present among recovered artifacts.

Clement et. al. (1997) reported the presence of the structures in this area that were noted on the 1868 McDuffie Map of Cumberland County and gives the name of Lamont to the area. The 1884 McDuffie map does not show any habitation in this area (Figure 24). The 1919 topographic and

property maps do not show areas north of the Little River and therefore do not include information Site 31CD485. The 1919 topographic map (Figure 25), however, does indicate that the nearest river crossing to the site was called "Lamont Bridge" which corroborated the information from the 1868 map.

The 1997 survey describes the site as having very high levels of integrity. The only sign of site disturbance was the presence of a neat stack of loose bricks located near the chimney fall. The archaeologists attributed this incident as the work of brick robbers. Test units were not dug at this site and shovel tests, as stated above, were located away from the chimney feature to minimize site disturbance.

Figure 24. Site 31CD495 on 1884 McDuffie Map (map courtesy of Fort Bragg CRM).

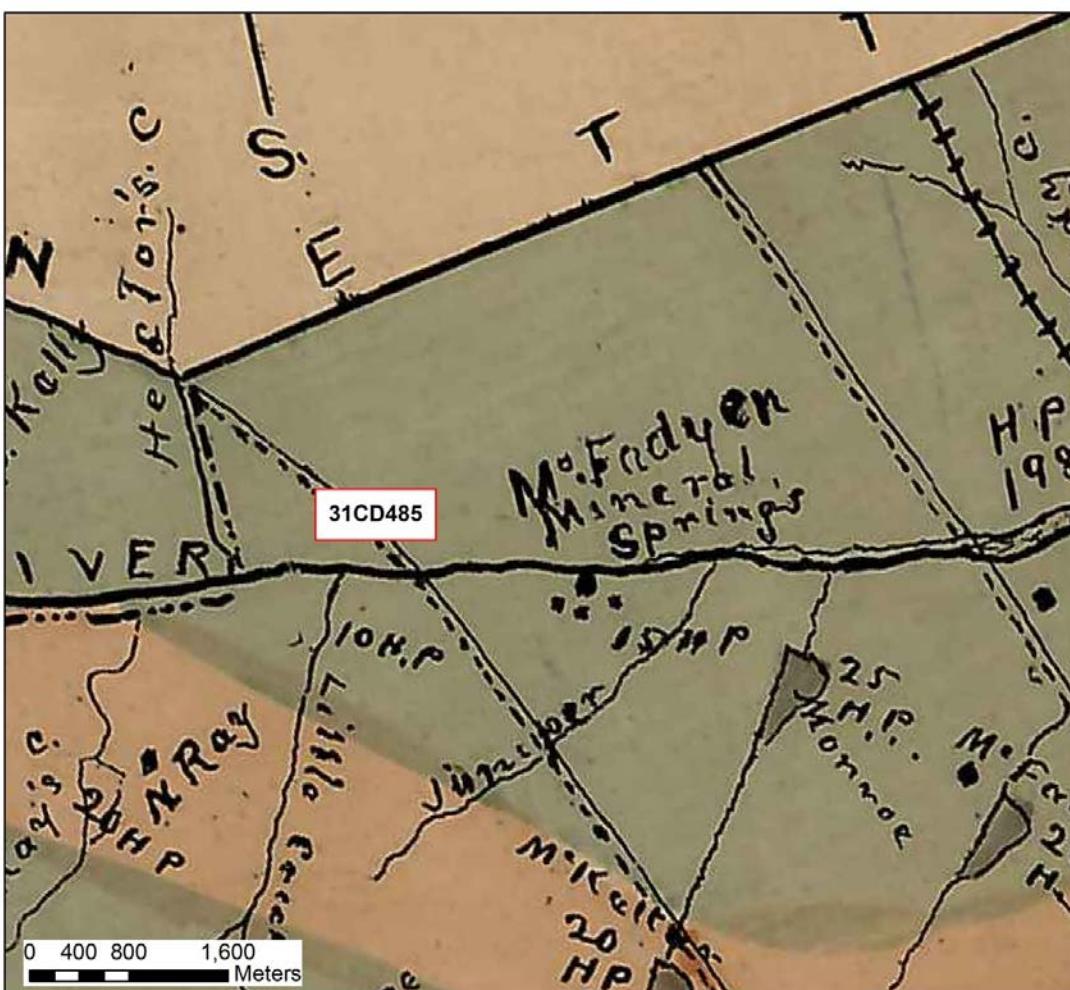
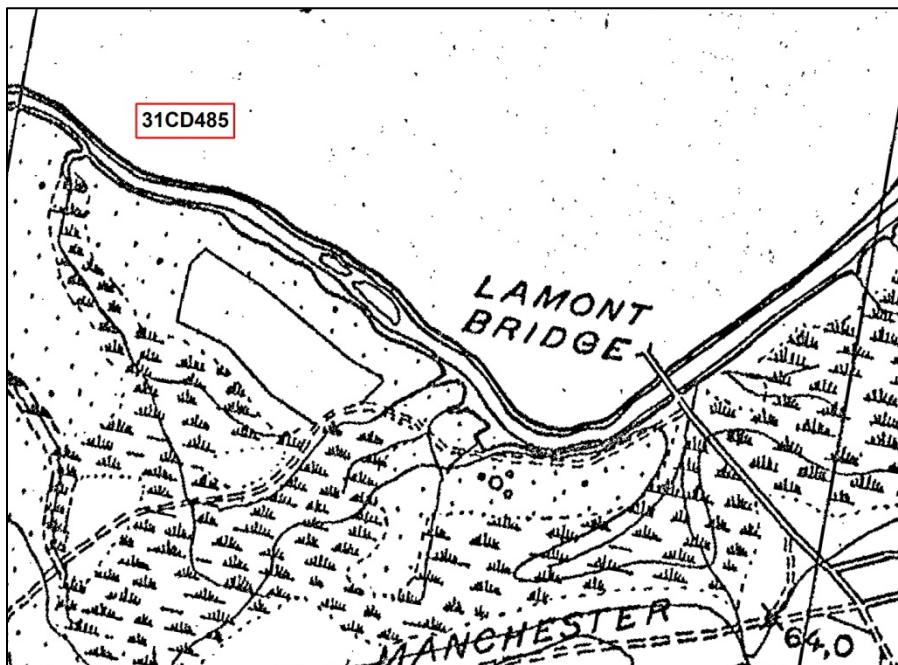


Figure 25. 1919 topological map (courtesy of Fort Bragg CRM).

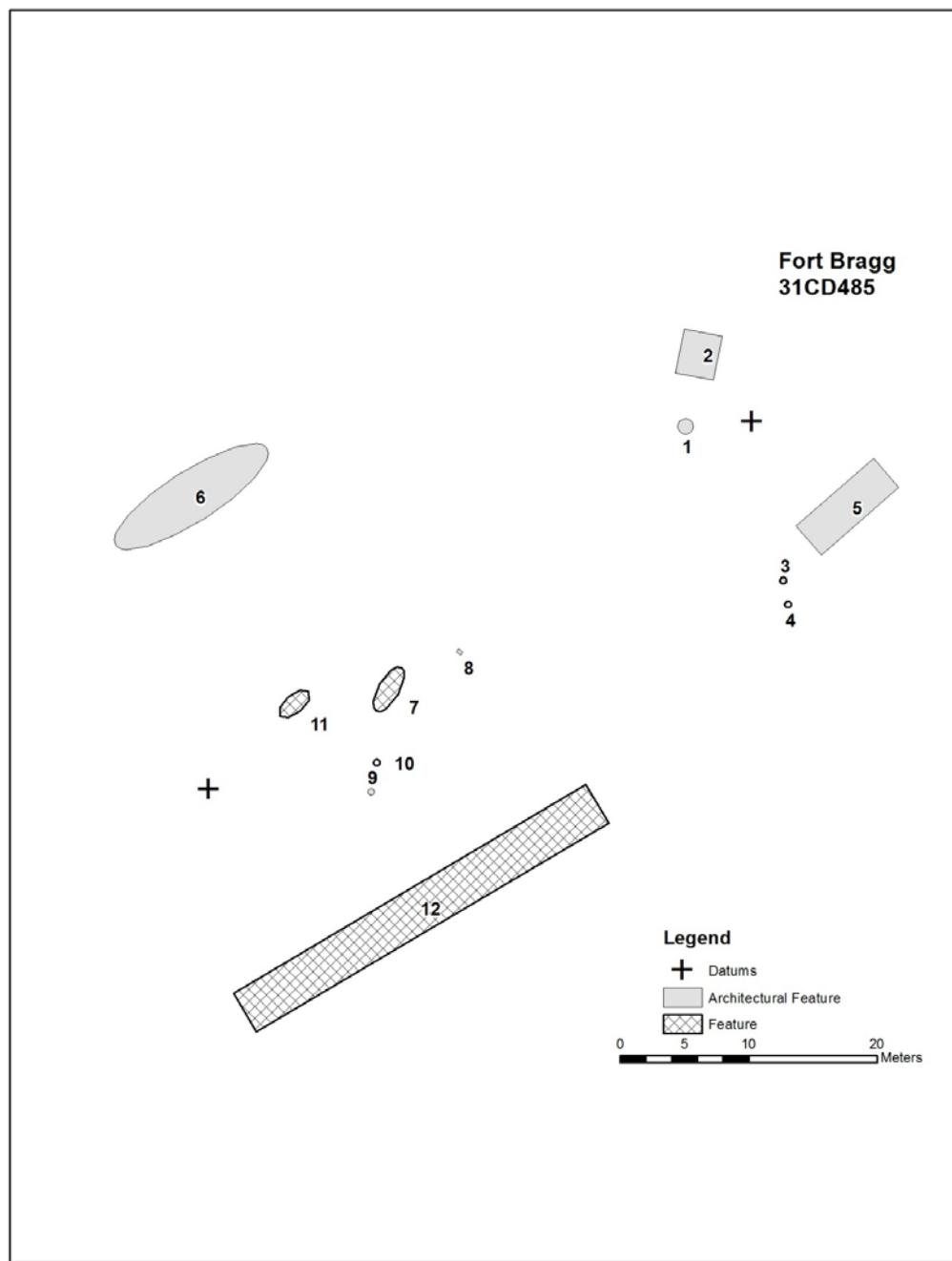


4.1.2 ERDC-CERL site visit

ERDC-CERL researchers identified multiple elements at the site (Figure 26). The description of each element is given below.

1. Shallow circular depression – 5 cm deep, 2 m diameter
2. Shallow rectangular depression – 10–15 cm deep, 3 x 3–3.5 m in. size
3. Brick pile
4. Brick and stone (quartzite) pile
5. Shallow rectangular depression – indistinct northeast boundary, 10 cm deep, 3 x 5–8 m in size
6. Berm – 1 m tall, 7 x 2 m in size; brick scatter on the surface; this is interpreted as the chimney fall on the original site map
7. Berm – 1 m tall, 3 x 1 m in size; brick and stone scatter on the surface
8. Brick pier base – level with surface, 22 cm²
9. Depression, deep depression – 30 cm deep, 50 cm diameter
10. Depression or hole – no bottom discernible with equipment available at the time, 50 cm in diameter
11. Berm – 1 m tall, 1.5 x 2 m in size
12. Level area – large, flat, regularly sized area that may be remnant of access road or path

Figure 26. Site 31CD485, sketch map (ERDC-CERL, 2013).



ERDC-CERL researchers interpreted the site as consisting of two focal areas. The first was a habitation area on the western portion of the site. This area consisted of three berms, the brick pier base (Element 8; Figure 27), and two small, circular, deep depressions. The berms were identified as chimney falls. It is believed that the largest berm (Element 6) was the one mapped as part of the 1997 survey (Element 7; Figure 28). It is unclear why the smaller two berms were not identified on the map. There are no depressions in the vicinity of the smaller berms that would indicate that these are back-dirt piles from excavations after 1997. Additionally, there are established trees growing out of the sides of the berm that would indicate some age to these features.

The small, deep depressions (Elements 9 and 10) were very regularly shaped and could be the remnants of wells or privies, or the results of animal activity, or poorly backfilled shovel tests from previous excavations. There were, however, no piles of dirt (fresh or eroded) near these holes and depressions that would indicate that the excavation had occurred recently. A large, open, flat area was located on the southern end of this focal area. There were no large trees in this area. There were no definitive indications that this is a manmade feature, but its location and orientation make it possible that this could be the remnants of an access drive or path to the site.

Figure 27. Site 31CD485, Element 8 (ERDC-CERL, 2013).



Figure 28. Site 31CD485, Element 7 (ERDC-CERL, 2013).



The second focal area was located approximately 25 m to the northeast and consisted of multiple regularly shaped depressions that indicate a cluster of outbuildings associated with the farmstead. These depressions were shallow, but had level bases and an absence of associated back-dirt piles which points to them being part of the farmstead complex and not military training activity. It is doubtful that the brick and stone piles in this portion of the site are the same piles mentioned in the 1997 report, as that pile was described in the proximity of the chimney fall. These now-noted brick piles may indicate continued looting of the site for bricks.

Several species of plants were identified on the site as non-native. These species include black walnut trees, day lilies, daffodils, and yucca. All of these plants were identified in the vicinity of the western (first) focal area.

The presence of the spring head southeast of the site expands the possibilities of site activities at 31CD485. It is possible that the occupants of this site utilized the spring head as a source of water. This spring head does not appear on the historic maps available to CERL, but on the 1884 McDuffie map a site named "McFadyen Mineral Springs" is located about 2 km from Site 31CD485 (refer to Figure 24). If the spring at Site 31CD485 is also a mineral spring, it opens the possibility that the spring was a source of rural industry or economic activity beyond a simple source of

water. ERDC-CERL researchers were informed that the spring was listed at a different archaeological site and was therefore not included directly in the current site evaluation, although its affect on the occupants at Site 31CD485 was considered by ERDC-CERL researchers during their prescreening form evaluation process.

The site has very good integrity. There is no evidence of military training or activity in the area. The 1997 survey recovered artifacts from the surface and subsurface, and had at least one shovel test that was impeded by a subsurface brick feature, which indicates the possibility of below-ground features. There is no sign of ground-disturbing activity. Patterns in the distribution of site features indicate that activity areas are likely to be discernible. These observations indicate a high probability that the site has not been significantly impacted by recent military or construction activity and it maintains its depositional patterning. The only potential area of concern is the presence of small piles of brick that were observed in the 1997 and the ERDC-CERL survey. These piles may indicate brick collecting/looting from the site. The impact of this activity is judged, however, to be minimal since there does not appear to be ground disturbance associated with these piles. It should also be noted that archaeological Phase II investigations have occurred on this site in the interim, and the absence of the 1997 brick pile and the appearance of two new piles may be related to properly recorded site activities.

4.1.3 Farmstead eligibility prescreening form

Level I Questions (specific site answers in bold-faced type):

1. Is the site less than 25% disturbed and therefore possesses high site integrity?
 - a. **If YES: move to Question 2**
 - b. If NO: Is the site 75% or more disturbed?
 - i. If YES: Site has altered integrity and therefore is NOT significant.
 - ii. If NO: Site disturbance is between 25-75%, move to Question 2.
2. Did the site have a function other than an agricultural property? Is the property listed on deed records, maps, or other historical documents as something other than a farmstead?⁹
 - a. **If YES: Site may be eligible due to the low density of non-agricultural structures.**

⁹ Both yes and no answers were given for this question due to ambiguous site function (related to spring head), as discussed in text following these questionnaires.

b. If NO: Move to Question 3. – NOTE the presence of a nearby water spring on a different site may have had an impact on the site activity at this site.

3. Is the site on historic maps, property deeds, or other historic documents?
 - a. If YES: Provide timeframe of the historic documents as the site is potentially significant.**
 - b. If NO: Move to Question 4
4. Is there potential for intact buried deposits based on subsurface testing?
 - a. If Yes: Site has potential for further research and is potentially eligible.**
 - b. If UNK: Site has potential for further research.
 - c. If NO: Site has altered integrity and therefore is NOT significant.
5. Does the site possess structural features, such as intact in-ground or above-ground architecture?
 - a. If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Question 6.
6. Does the site possess artifacts that were manufactured prior to the beginning of the twentieth century?
 - a. If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Level II evaluation.

Level II Questions (specific site answers in bold-faced type):

1. Is the site a portion of an associated series of sites within the local vicinity that could suggest a larger community or district?
 - c. If YES: Site and associated sites have potential eligibility as a district and require further investigation.
 - d. If NO: Move to Question 2.**
2. Does this site possess multiple architectural features?
 - c. If YES: The site is potentially significant.**
 - d. If NO: Move to Question 3.
3. Is there a foundation on the site larger than 10 x 10 ft and less than 30 x 30 ft? (Note: structures that fall outside of these ranges are likely outbuildings).
 - c. If Yes: Site has potential for further research and is potentially eligible.**
 - d. If NO: Move to Question 4.
4. Is there evidence of small (wells, privy, shed, crib, etc.) or large (barn, stable, sore house) architectural features?
 - a. If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Question 5.
5. Is there evidence of fence construction? Fence construction often signals long-term tenure and can assist in determining the extent of the property boundaries.

- a. If YES: Site has potential for further research and is potentially eligible.
- b. If NO: Move to Question 6**
6. Was the site occupied by a person of historical, regional, or local significance?¹⁰
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Question 7.
7. Is there any oral history available for this site?
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Question 8.
8. Was there extended or continual use of the site by one family?
 - a. If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to END.

4.1.4 Site evaluation

Application of the prescreening checklist provides strong guidance to indicate NRHP eligibility for this site. For the first part of the checklist, a *yes* answer for any one of the six questions indicates the potential for NRHP eligibility. For Site 31CD485, a clear *yes* answer was possible for five of the six questions. Additionally, the answer for question #2, “Did the site have a function other than an agriculture property?” could be answered as either *yes* or *no*, depending on the importance the evaluator gives to the presence of a nearby water spring and historical indications that other water springs in the area were used for commercial purposes. For the second part of the checklist, three *yes* answers out of the possible eight would indicate a strong probability of NRHP eligibility. Again, for this site there were at least 4 *yes* answers with an additional 2 *yes* answers possible with additional archival research on the Lamont family.

A combination of historical map records and the examination of surface and subsurface artifacts indicate that the site was occupied during the middle of the nineteenth century, and it does not appear to be impacted by any twentieth-century activities or occupation. The site layout is clearly discernible, and there appears to be site organization around two activity areas — a residential area to the west and a secondary area to the east. The presence of a water spring in close proximity to this site raises the

¹⁰ No answer to questions #6 and #7 (and other instances within this report) is due to lack of definitive information, as described in text following each questionnaire.

possibility that the site had a function other than agriculture production. Finally, the site has a high degree of integrity. Subsurface architecture is indicated by the brick disruption to shovel testing in 1997, and the observation of brick pier footers and the location of outbuildings discernible from surface depressions in the 2013 visit. There is no evidence of any modern ground disturbance activity and minimal evidence that the site has been looted for artifacts.

Based on the expanded Phase I evaluation and the application of the prescreening checklist, it is recommended that Site 31CD485 is **eligible** for inclusion on the NRHP under Criterion D.

4.1.5 Phase II survey results

Phase II evaluation of this site is, as yet, unpublished; however, verbal communication with Fort Bragg CRM staff confirms that the site is being described as **eligible** for inclusion on the NRHP.

4.2 Site 31CD815 results

This site was first recorded in 2000 in a Phase I report titled “Cultural Resources Survey of 1,688 Acres in Three Survey Tracts, Fort Bragg, Hoke and Cumberland Counties, North Carolina,” published by Southeastern Archaeological Services, Inc (Benson 2000).

4.2.1 Original Phase I results

All information in this subsection is derived from Benson 2000, 164-165. This site is located on the southern face of a gentle slope with the highest elevation on the north side of the site (Figure 29). Immediately to the south of the site is a modern firebreak dirt road. The remnant of a historic road, the Old Yadkin Road, is located an additional 15 m south of the firebreak. The site is wooded with coniferous pine trees. The area of the site had undergone a controlled burn event prior to ERDC-CERL’s site visit, and vegetation had only minimally reestablished itself. As a result, ERDC-CERL researchers had nearly 100% surface visibility of the entire site. The site is visibly discernible from the firebreak road by the presence of a chimney fall and three large oak trees in an area dominated by pines.

The original survey identified four features (Figure 30). These included the chimney fall, two sandstone piers, and a 60 cm-deep oval depression with

sandstone rocks measuring 3 x 2 m. At the time of the original survey, the ground was covered in vegetation and only 5% surface visibility was recorded. Three undecorated whiteware sherds were recovered from the graded bank of the firebreak road. Eleven shovel tests were placed in a cross pattern orientated on the cardinal directions with the center of the cross located just north of the chimney fall. With the exception of one negative shovel pit placed south of the firebreak road, all shovel tests were located within 25 m of visible surface features. Only two of the shovel tests produced artifacts. The shovel test north of the chimney fall produced two brown glass bottle fragments, and the shovel test north of the depression produced a dark green wine bottle neck and mouth. All subsurface artifacts were recovered in the top soil strata (the top 22 cm of the shovel tests). The site form filed as part of the original Phase I survey indicates the site is subject to periodic timber harvest, but no sign of this activity was present at the time of the current study.

Figure 29. Site 31CD815 on 2013 USGS 7.5 quadrangle map (www.nationalmap.gov).

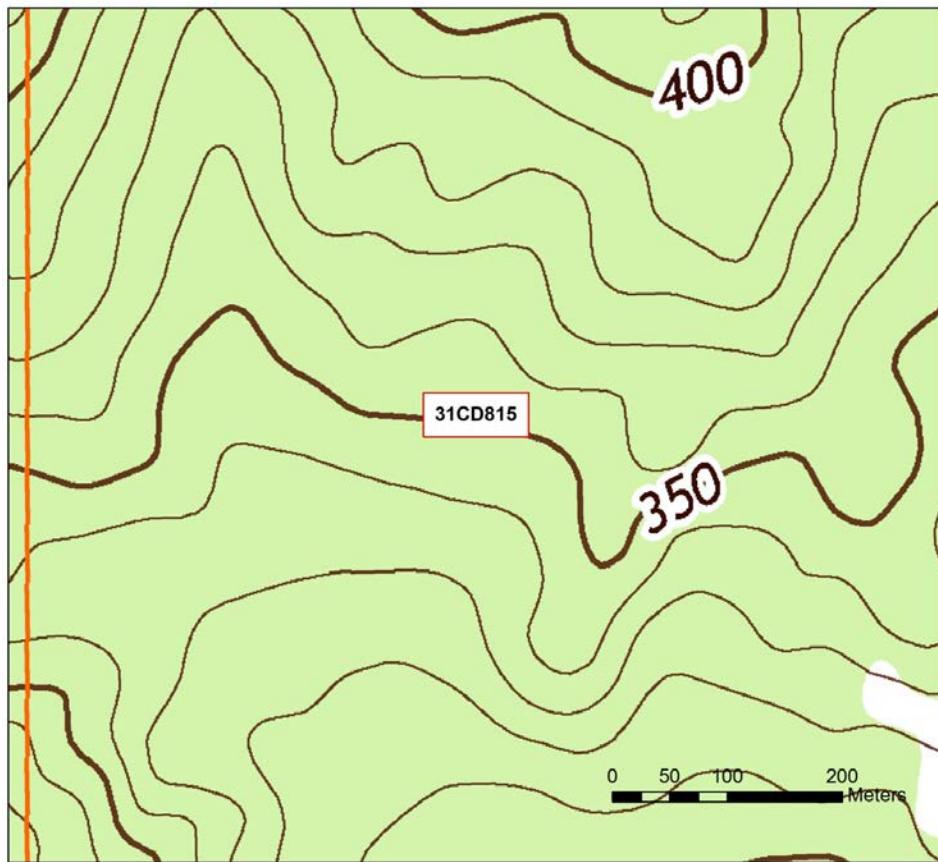
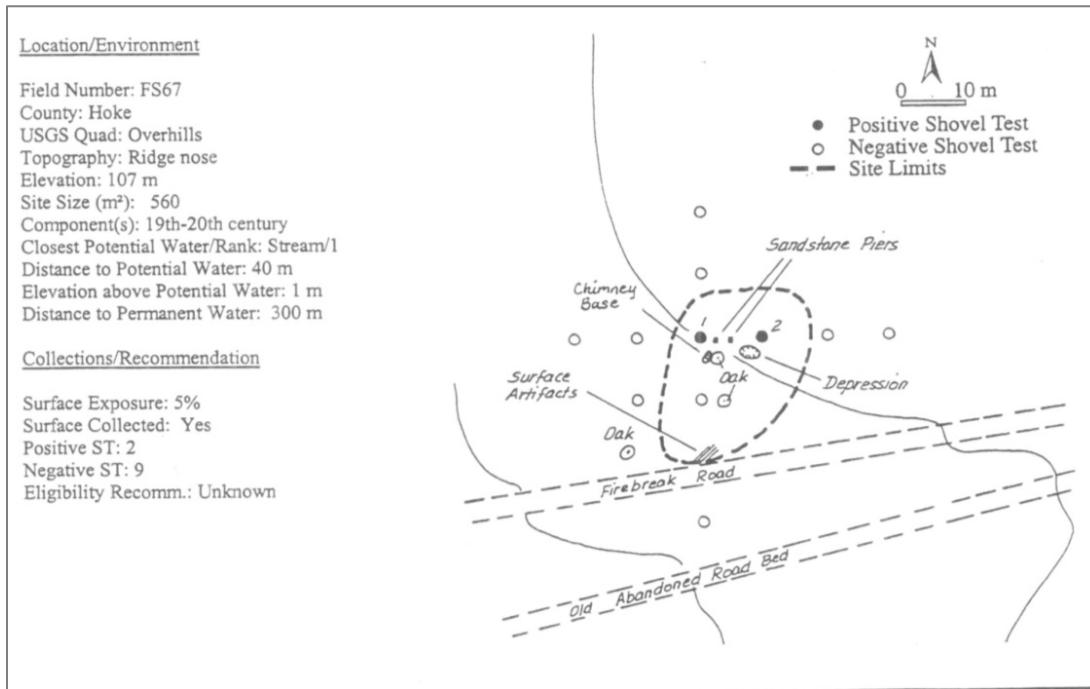


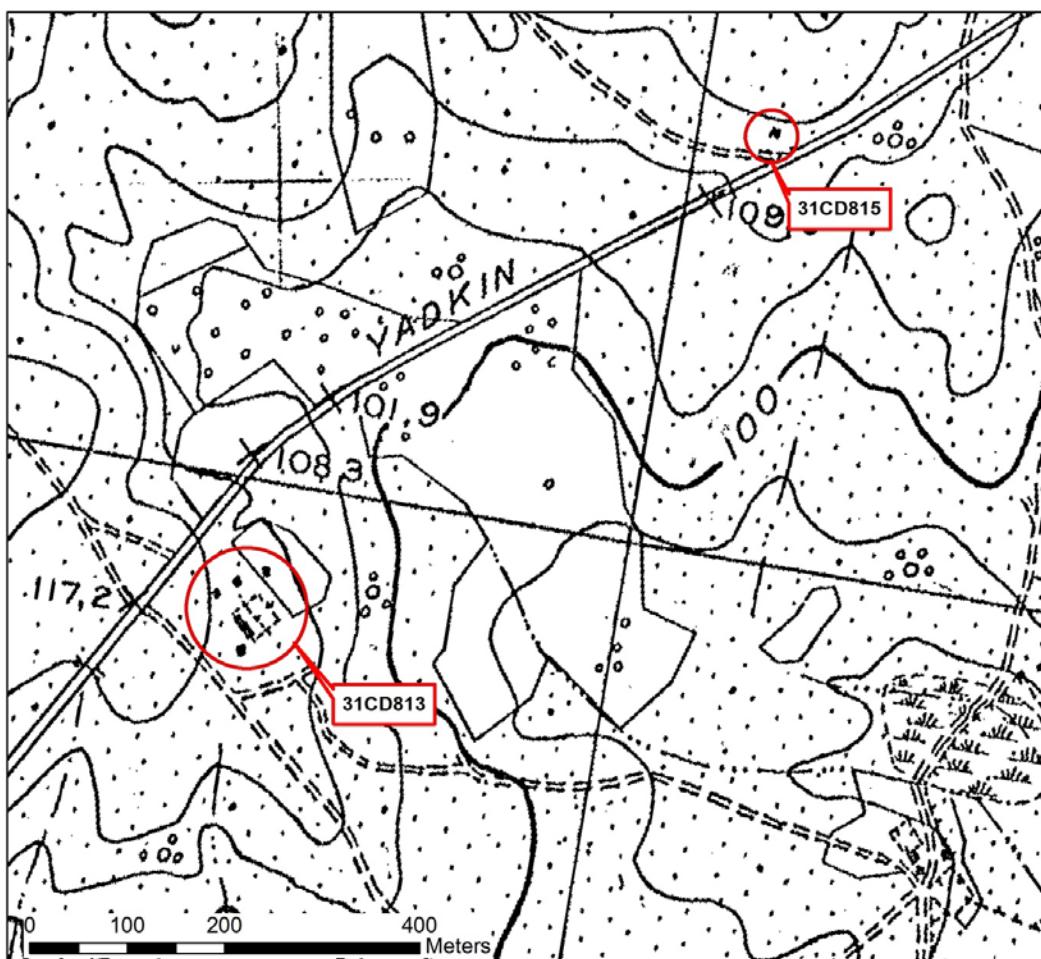
Figure 30. Phase I survey map of Site 31CD815 (Benson 2000).



The 1919 topographic map depicts a structure at this site (Figure 31). The 1919 property map describes this property as located towards the center of the Duncan Ray property. The Duncan Ray property is not the largest property in the region by any means, but at nearly 300 hectares, it is over double the size of most of the adjoining properties. The 1919 property map also shows there are additional properties in the area that were owned by members of the Ray family, and that these properties also tend to be larger than the immediately adjoining plots. This information indicates that the Ray family was established for some period in the community, and that members of the family had the resources to acquire slightly more land than their neighbors. There is an additional, larger complex of structures on the Duncan Ray property located southwest of Site 31CD815. This location corresponds to Site 31CD813, a sizable historic residential site as it presumably the home of the Duncan Ray family. The original Phase I survey suggested that Site 31CD815 might be associated with Site 31CD813. Approximately 450 m on a well-established historic road separates the two sites. The lack of discernible outbuildings, especially structures that might house animals, makes it unlikely that Site 31CD815 was the focal point of a nineteenth-century farm plot nearly 300 hectares in size. There was no evidence found at the site that indicated any economic activity to support the inhabitants. That is not to imply that the site did not have any economic activities, but that any activities on the site

did not require the construction of specialized structures. A likely scenario for this situation is that Site 31CD815 was a secondary residential site to the larger complex at Site 31CD813 which appears to be occupied at about the same time. Possible residents of Site 31CD815 include tenants, hired laborers, and/or adult members of the Ray family that were establishing their own household while continuing to work on the family property.

Figure 31. 1919 topographic map with Site 31CD813 and Site 31CD815 (courtesy of Fort Bragg CRM).



4.2.2 ERDC-CERL site visit

ERDC-CERL researchers identified the following nine elements at the site, which are visually located on the site map (Figure 32) and listed below.

1. Berm, 1 m tall, 4 x 2 m in size; stone scatter on surface
2. Surface artifact – barrel hoop fragment
3. Sandstone pier base

4. Rectangular depression – 30 cm deep, 4 x 2 m in size; sandstone rock in southeastern corner
5. Surface artifact – 3 in. long threaded iron “I” bolt
6. Sandstone pier base (Figure 33)
7. Firebreak road
8. Dirt push pile, recent
9. Surface artifact scatter

ERDC-CERL researchers were able to relocate all features mapped as part of the original Phase I survey and did not find any additional features that appear to be of any significant age. The site is interpreted as the location of a domestic structure. The berm (Element 1) marks the location of the structure’s chimney, and the depression (Element 4) marks the location of a structure. Given the depression’s close proximity to the chimney fall and the presence of sandstone pier bases very near these two elements, it is possible, but not certain, that all architectural elements belonged to the same structure. The 1919 map only indicated one structure on the site, but it is possible that a very small building close to the main structure would not have been mapped. The secondary structures of Site 31CD813 that are shown on the 1919 map appear to be located at least 10 m apart from each other.

The push pile on the southeast of the site (Element 8) is of recent origin and is likely the result of ongoing activities related to the maintenance of the firebreak road. The principle information derived from the ERDC-CERL site visit was the identification of multiple surface artifacts – these were not collected but noted and left on site. On the side of the berm an iron barrel hoop fragment was identified (Element 2). Element 5 was a 2–3 ft long threaded iron rod. Element 9 was a surface artifact scatter that consisted of one piece of whiteware, one clear panel bottle neck fragment, and a fragment of a cast iron wood stove that bore the marking of “PAT” (most likely part of PATENT; Figure 34). The artifact types observed and/or recovered in the original Phase I and ERDC-CERL revisit have broad chronological ranges and date the site occupation to a period between the latter half of the nineteenth and early twentieth centuries.

Figure 32. Site 31CD815, sketch map, (ERDC-CERL, 2013).

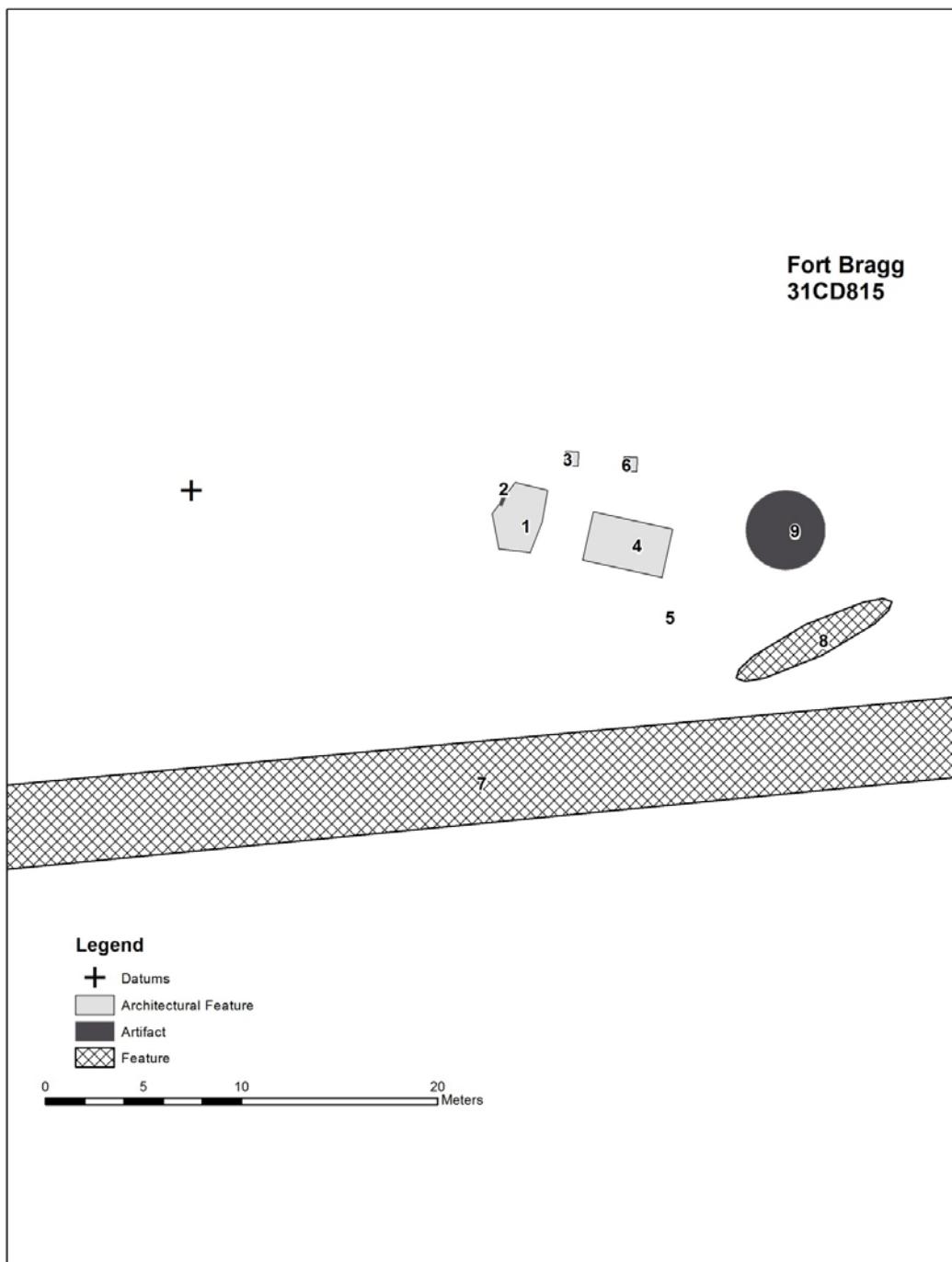


Figure 33. Site 31CD815, Element 6 (ERDC-CERL, 2013).



The metal wood stove fragment and iron rod were sitting loose on the surface (not imbedded in the surface soil) at the base of trees. This is common practice by people using metal detectors who move the unwanted metal objects to the base of trees so that the objects do not interfere with additional metal detecting at the site. Fort Bragg CRM staff indicated that metal detecting was not an unknown occurrence on Fort Bragg. While metal detecting is an accepted practice of archaeological survey, it is unlikely that these metal objects were present at the time of the original Phase I or intervening Phase II archaeological investigations at the site. Any artifacts recovered as part of those investigations would have been removed, cataloged, and curated as part of the site record. Given the site's close proximity and visibility from a firebreak road, it is not surprising that it has attracted the attention of artifact hunters.

Figure 34. Site 31CD815, stove fragment—part of Element 9 (ERDC-CERL, 2013).



There was also evidence of military training in the vicinity of the site. Approximately 30–50 m northeast of the site, a series of at least four oval depressions were observed, with back-dirt piles on the east side of each depression. These depressions were interpreted as infantry fighting positions. These fighting positions were located outside the demarcated site limits, but it should be noted that the site limits only include the area in the immediate vicinity of the chimney fall and depression. None of the shovel tests excavated showed signs of subsurface features, but the soil profiles taken during these tests demonstrated distinct soil horizons which indicate that the site within 25 m of the chimney fall has not been tilled or experienced soil churning in recent years. The combination of the push pile, nearby fighting position excavations, lack of subsurface features, and evidence of metal detecting indicate that integrity of this site is low.

4.2.3 Farmstead eligibility prescreening form

Level I Questions (specific site answers in bold-faced type):

1. Is the site less than 25% disturbed and therefore possesses high site integrity?
 - a. If YES: move to Question 2
 - b. If NO: Is the site 75% or more disturbed?**
 - i. If YES: Site has altered integrity and therefore is NOT significant.

- ii. **If NO: Site disturbance is between 25-75%, move to Question 2.**
- 2. Did the site have a function other than an agricultural property? Is the property listed on deed records, maps, or other historical documents as something other than a farmstead?
 - a. If YES: Site may be eligible due to the low density of non-agricultural structures.
 - b. If NO: Move to Question 3.**
- 3. Is the site on historic maps, property deeds, or other historic documents?
 - a. If YES: Provide timeframe of the historic documents as the site is potentially significant.**
 - b. If NO: Move to Question 4
- 4. Is there potential for intact buried deposits based on subsurface testing?
 - a. If Yes: Site has potential for further research and is potentially eligible.
 - b. If UNK: Site has potential for further research.**
 - c. If NO: Site has altered integrity and therefore is NOT significant.
- 5. Does the site possess structural features, such as intact in-ground or above-ground architecture?
 - a. If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Question 6.
- 6. Does the site possess artifacts that were manufactured prior to the beginning of the twentieth century?
 - a. If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Level II evaluation.

Level II Questions (specific site answers in bold-faced type):

- 1. Is the site a portion of an associated series of sites within the local vicinity that could suggest a larger community or district?
 - a. If YES: Site and associated sites have potential eligibility as a district and require further investigation.**
 - b. If NO: Move to Question 2.
- 2. Does this site possess multiple architectural features?
 - a. If YES: The site is potentially significant.
 - b. If NO: Move to Question 3.
- 3. Is there a foundation larger than 10 x 10 ft and less than 30 x 30 ft on the site? (Note: structures that fall outside of these ranges are likely outbuildings).
 - a. If Yes: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Question 4.**
- 4. Is there evidence of small (wells, privy, shed, crib, etc.) or large (barn, stable, storehouse) architectural features?
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Question 5.**

5. Is there evidence of fence construction? Fence construction often signals long-term tenure and can assist in determining the extent of the property boundaries.
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Question 6**
6. Was the site occupied by a person of historical, regional, or local significance?
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Question 7.**
7. Is there any oral history available for this site?
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Question 8.
8. Was there extended or continual use of the site by one family?
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to END.**

4.2.4 Site evaluation

Site 31CD815 is a small historic site that is marked by a small number of architectural elements and artifacts. The architectural elements on the site consist of the chimney fall, two stone pier bases, and one depression. These elements are close enough to each other that they may constitute parts of a single structure or they may be parts of small structures in close proximity to each other. The presence of a chimney fall and stove fragment indicate that the structure was heated. When one considers that the artifact assemblage is dominated by bottle glass and whiteware ceramics, one is led to the conclusion that this site is most likely a residential site.

A small number of artifacts were collected and/or observed from surface and subsurface deposits. These artifacts date the site to a broad period of time that includes the mid to late nineteenth and early twentieth centuries. The low density of artifacts and small number of potential structures at the site, however, indicate that the site was not occupied for an extended period of time.

Well-established soil strata were observed during the shovel tests. This indicates that the site has not experienced widespread soil disturbance such as tilling or churning. No subsurface features were observed during shovel testing, but the soil conditions indicate there is still the possibility of such features existing but undiscovered. Soil-disturbing activities are indicated on the peripheries of the site by the presence of a recent push pile within the boundaries of the site and the infantry fighting positions a few meters northeast of the site. Observations during the 2013 ERDC-

CERL site visit indicate that the site has been visited by artifact hunters using metal detectors.

Application of the prescreening form does not indicate that the site is eligible for the NRHP. The first level of the checklist produced four *yes* answers, one *unknown*, and two *no* answers which would indicate eligibility. However, one of the *yes* answers, for question #6 (“Does the site have artifacts manufactured prior to the twentieth century”) is not a definitive answer due to the fact that the artifact types associated with this site have had continuous production from the nineteenth century to current times. There was not a single artifact type that could only have been produced in the nineteenth century. As a result, there are three *yes* answers, one *unknown*, one *ambiguous*, and two *no* answers. The Level II questions of the prescreening form provide a more definitive result. Of the eight questions on this portion of the checklist there are five clear *no* answers. A clear answer to question #2 is not possible since it is unclear from available evidence if the four architectural elements represent one or multiple structures. The only *yes* answer in this portion of the checklist is for question #1 (“Is the site a portion of an associated series of sites..?”). This *yes* answer is indicated by the supposed association of Site 31CD815 and Site 31CD813. Question #7 (is oral history available?) is unanswerable due to insufficient information at this time.

As a result of the expanded Phase I surveys and prescreening form evaluation, Site 31CD815 is recommended as **ineligible** for inclusion on the NRHP.

4.2.5 Phase II survey results

Phase II research was done on this site by Palmetto Research Institute, whose researchers reported their findings in a May 2005 report titled “Phase II Archaeological Testing and Evaluations of Thirteen Sites, Fort Bragg, NC (C5890020435-D5095020469), Volume 2: Four Historic Sites” (Steen 2005).

Information in the remaining paragraphs of this entire section (including references to census material) was derived from pages 51–69 and 119–133 of that report. The Phase II investigations included archival research, 114 shovel test units, a general metal detector survey, and two 1 x 2 m test unit excavations.

Archival research indicated that the site was the property of Duncan Ray and his descendants, but repeated reuse of the Christian names John and Duncan within the family makes the tracking of property titles and lineages problematic. The Ray ownership and occupation of the land on which Site 31CD815 sits (described in the report as Tract 156) can be traced back only definitively to the 1850s, but might extend further to the Revolutionary period. The earliest-named inhabitants were Catherine Ray and her son Duncan. The 1850 Slave Schedule indicates the family owned 11 slaves, but they did not own slaves in 1860. The 1870 census and Agricultural Schedule indicates that living with Duncan Ray and his family were a white farmhand, his wife and child (the Johnsons) and seven male African-American turpentine workers. It is doubtful that all of these people were living under the same roof. Most likely the Johnsons and the laborers were housed in other structures on the property. The 1880 census does not describe any inhabitants other than the Ray family. The 1890 census and the 1900 and 1910 Agricultural Schedules are no longer in existence. At the time of military acquisition of the area (1918–1919), Site 31CD815 was described as an isolated structure (not a residence), and Site 31CD813 was listed as the principal farm complex of this branch of the Ray family.

The Steen (2005) report indicates that the Ray farm in Tract 156 was primarily a subsistence farm with less than 100 improved acres throughout its recorded history. Agricultural schedules record the presence of small numbers of livestock, including cattle, pigs, sheep, horses, and (somewhat unique in the area), mules. There appears to have been an orchard as the 1880 schedule reports the sale of four bushels of apples. The presence of six turpentine workers in 1870 provides evidence that the family was, at least for a while, supplementing their income with forestry/navel stores industry.

The metal detector survey covered the entire site. Metal detector hits were concentrated in an area within 10 m of the chimney structure. Metal detecting did not produce any evidence of any additional structures on the site. Metal detector hit excavations were not dug through the topsoil/subsoil horizon, so not all metal detector hits were fully investigated and metal was left at the site. It is extremely unlikely that the evidence of metal detector activity observed during the ERDC-CERL field visit was a result of that archaeological investigation, however. Archaeologists on a contracted survey would not have left historic items

lying at the base of trees—those would have been collected and recorded as artifacts.

Excavations at the site included shovel tests and test units. There were 114 shovel test excavations conducted at 2.5-m intervals over the site, focusing on the area around the chimney and depression. A total of 27% of these tests were positive, producing 44 artifacts. Most artifacts recovered from the site can be classified as kitchen or architectural types. Most positive shovel tests were located in the immediate vicinity and southwest of the chimney fall. The first test unit was excavated at the base of the chimney fall and produced mortar concentrations,—bricks and sandstone foundation stones were laid out in what was described as a hearth foundation. This unit produced 158 artifacts that included 118 nails and only 10 kitchen group artifacts. The second test unit was excavated to explore the depression and the southern footing stones. The depression was determined to be a modern disturbance with modern trash found throughout the fill. This second test unit produced 117 artifacts of the kitchen and architectural groups, but the assemblage was dominated by 88 pieces of glass that could be attributed to just three glass vessels.

The artifact assemblage strongly indicates that this site was a habitation site. Of the assemblage, 57% were architectural group artifacts and 35.2% were of the kitchen group. Some artifact types included in the “other” category include personal adornment items like buttons and a women’s clothing buckle and small farm implements such as tines from a pitchfork and plow parts. Several key artifact types present in the architectural and kitchen groups help to narrow the age of the site. Dark green “black glass” beer or ale bottles were found, and this type of glass becomes less common after the Civil War and uncommon after the 1870s. A flask-shaped bottle is most commonly associated with the period 1850–1880. Manganese glass was not found, which indicates the site was abandoned prior to 1890. Only 11 ceramic pieces were recovered, and most of these are undatable whiteware. One tricolored slip sherd can be tentatively dated to the 1830–1859 period; a ginger beer stoneware bottle fragment could have been manufactured from 1840 to the twentieth century, but are most often found on sites from the 1860s and 1870s. All of the 188 nails found on the site were machine-cut nails. No wire-cut nails were recovered. Wire-cut nails were introduced in the 1850s but did not become common until the late 1880s, indicating the site was constructed prior to the later date. The artifact assemblage indicates a short-term habitation of the site with the

most likely occupation range from the 1860s–1880s. This date range corresponds well with archival information indicating that turpentine workers and a small family were living on the Ray's property in the 1870s. Either group could have been the residents of Site 31CD815. The archaeologists who conducted the Phase II study suggested that it was most likely the Johnson family, based on the presence of a female clothing buckle and a small amount of agricultural implements in the assemblage and the site's proximity to Ray family's farm fields.

The 2005 Phase II report recommends this site as eligible for the NRHP. This assessment was based on the presence of intact features (presumably the hearth foundation) and its classification as an understudied site type. The authors do not state any specific research questions, but suggest the broad research topics of ethnicity, ethnogenesis, subsistence, economic practices, architectural practices, and landscape use. In the opinion of the ERDC-CERL researchers, this conclusion is not supported by the data recovered at the site. The short duration of the occupation (10–20 yr at most), the small number of artifacts (344), the limited number of structures (1), and limited activity at the site (habituation) combine to limit the information that can be gained on most of the listed research topics. Additionally, the discovery that the depression on the site (originally interpreted as a possible structure basin during both the standard and expanded Phase I surveys), is in fact a modern disturbance brings questions of the site's integrity to the forefront.

4.3 Site 31HK1850 results

The Site 31HK1850 Phase I investigation was originally reported by Panamerican Consultants, Inc. in their 2005 report, "Phase I Intensive Archaeological Survey of 1537.7 Hectares (3,775 Acres) L1, N2, M1, Q2, P2 and II2 Study Areas, Fort Bragg Military Reservation, Cumberland and Hoke Counties, North Carolina" (Gray 2005).

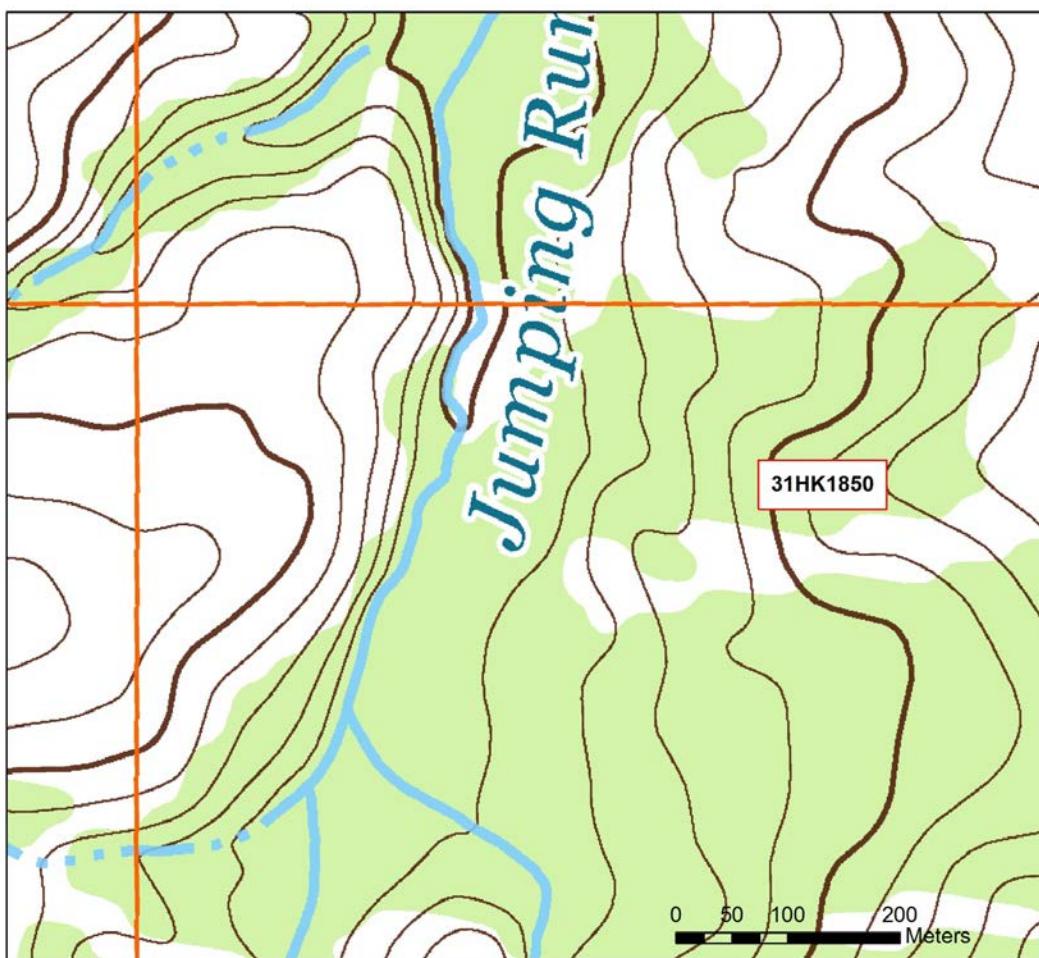
4.3.1 Original Phase I results

Note: All information in this subsection is derived from Gray (2005, 482–484).

The site was first recorded in 2003 as a multicomponent prehistoric and historic site. The site is located on a moderate ridge with a western aspect. Jumping Run Creek is located approximately 350 m to the west of the site

(Figure 35). During the ERDC-CERL visit, the site was covered with widely spaced young pines. The ground in the immediate area of the site was dominated by a thick spread of poison oak. Due to the presence of the poison oak, it was decided not to measure the site with tapes but instead to generate the sketch maps by pacing the distance. The area around the site was heavily impacted by forestry activity, but it appeared that effort was made to divert the logging activity and equipment away from the site (with the use of caution tape) and the site did not appear to be impacted by current forestry activities.

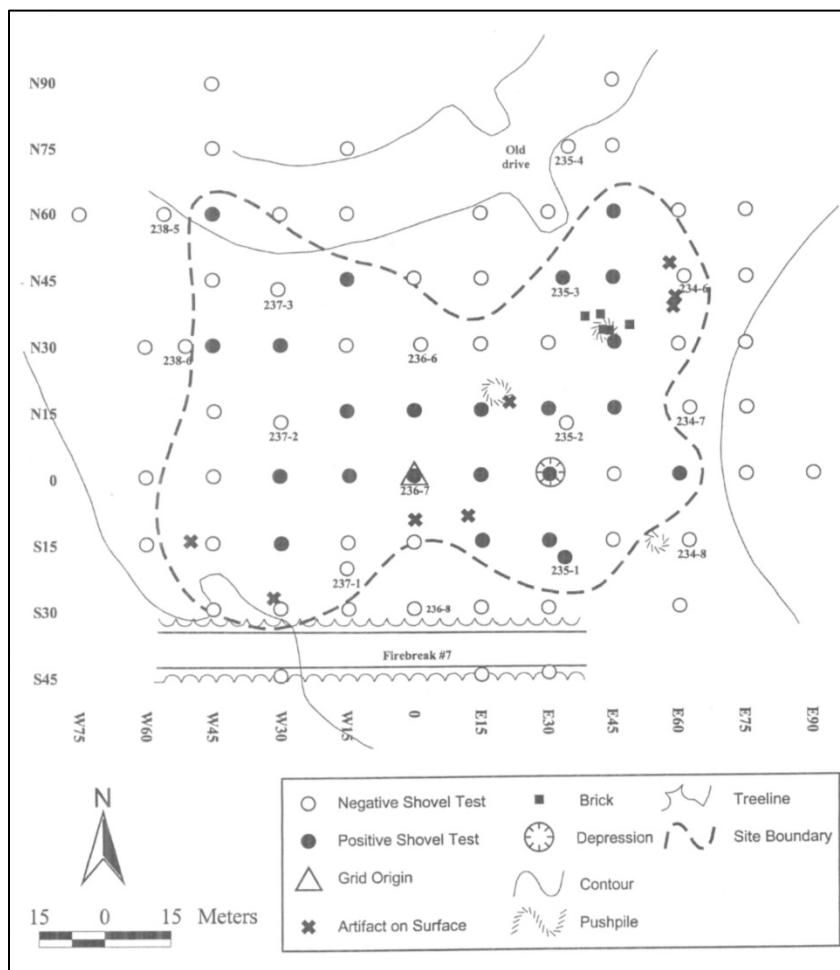
Figure 35. Site 31HK1850 on 2013 USGS 7.5 quadrangle map (www.nationalmap.gov).



The original Phase I survey focused mainly on the distribution of surface artifacts and the distribution of positive shovel tests (Figure 36). Two push piles, one depression, and one possible access drive were mapped on the sketch map. The text refers to several additional depressions that were seen but not mapped and states that all of the features on the site, with the

exception of the historic road, as likely modern disturbances. A brick surface scatter was identified in the immediate vicinity of the northeast push piles but this was not identified in the report as a possible chimney fall.

Figure 36. Site 31HK1850 site map (Gray 2005).



The Phase I survey team excavated 77 shovel tests, of which 23 were positive. Most of the artifacts recovered were found in the upper 50 cm below the surface. The subsurface artifact density showed a high concentration in the area of the northeast push pile and surface brick scatter, with a smaller concentration on the southwest push pile. Three shovel tests located in the southern central portion of the site produced artifacts in a much deeper context (75-85 cmbs) indicating the possibility of at least one subsurface feature.

4.3.2 ERDC-CERL site visit

ERDC-CERL researchers re-identified the two push piles and identified three additional rectangular depressions. These depressions were shallow (approximately 30 cm deep) and had a roughly similar orientation of southwest to northeast. While it is possible that these depressions might be the result of military or logging activity, the absence of corresponding back-dirt piles would indicate the possibility that these are older features where the excess soil was removed or graded from the excavation. The access road reported in the original survey was no longer visible and may have been obscured by the forestry activity.

ERDC-CERL researchers identified six elements at the site, as shown in Figure 37 and listed below.

1. Brick scatter
2. Berm – 1 m tall, 2 m in diameter
3. Berm – approximately .5–1 m tall, 1 m in diameter
4. Depression – less than .5 m deep, 5 x 4 m in size
5. Depression – less than .5 m deep, 3 x 2 m in size
6. Depression – less than .5 m deep, 3 x 3 m in size

The artifact assemblage recovered as part of the Phase I surveys plays a key role in the evaluation of this site. Positive shovel tests in the vicinity of the Elements 1 and 2 were dominated by architectural-type artifacts that further indicate this site was the location of a structure and that Element 2, described in the original Phase I report as a push pile, is in fact a chimney fall (Figure 38). The assemblage is dominated by architectural and kitchen group artifact types, including bottle glass (amethyst, aqua, clear, and light green), whiteware, ironstone, pearlware (hand-painted, annular, transfer-printed and shell edge), creamware, alkaline-glazed stoneware, porcelain, window glass, machine-cut nails, and brick fragments. Artifacts not in the kitchen or architectural groups, such as lamp glass and scissors, only reinforce the evidence of this site as a residential site. The artifact assemblage points to the possibility that the site might date to the eighteenth century.

While positive shovel tests occurred across the site, the shovel tests with the highest density (as well as the highest density of surface artifacts) occurred on the eastern portion of the site around the area of the berms. A few modern items such as four wire nails, three flathead screws, and a 12-

gauge shotgun shell were recovered from shovel tests, pointing to continued activity in the area. The fact that these modern artifacts were of architectural type and recovered from shovel tests, points to some form of utilization/construction rather than ephemeral activity. These modern artifact types also indicate that the site may have a later occupation, from the end of the nineteenth century to the early twentieth century. There are no artifacts from this site that date from the middle part of the nineteenth century.

Figure 37. Site 31HK1850, site sketch map (ERDC-CERL, 2013).

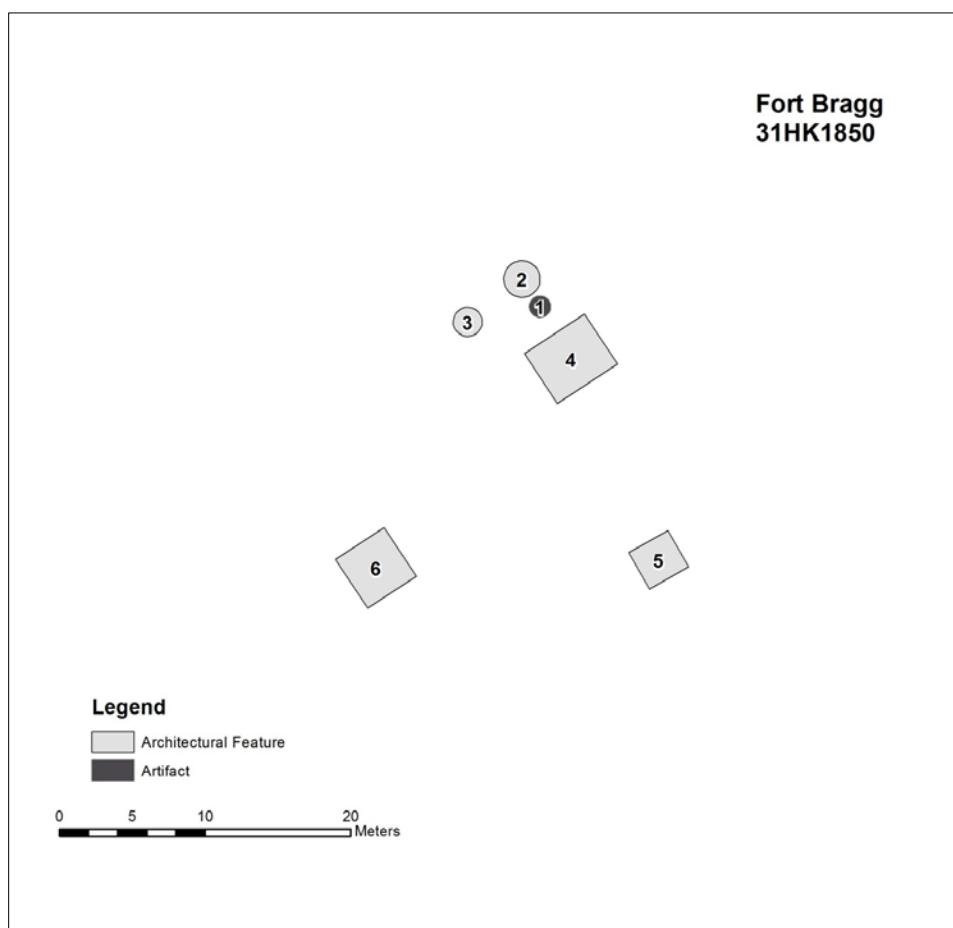


Figure 38. Site 31HK1850, Element 1 (brick scatter in center) and Element 2 (berm on the right). (ERDC-CERL, 2013).



The 1919 Property map of Fort Bragg shows this site as the property of George Patterson (Figure 39). The 1919 topological map depicts a few structures at the site, at what appears to be a crossroads (Figure 40). The 1884 map of the installation does not depict any structures in the site area, although the site is located within one mile of two mapped structures (labeled M'Lauklin and O Argyle) and the Long Street Church (Figure 41). The Long Street Church was first established in 1765 and rebuilt several times in the nineteenth century. The dates of these other structures, and the exact dates of Site 31HK1842, are not known for certain. Due to that uncertainty, therefore, this area cannot be labeled a “community” on the prescreening checklist. It should be noted that the map information corresponds to the artifact information.

Figure 39. Site 31HK1850 on 1919 property map (courtesy of Fort Bragg CRM).

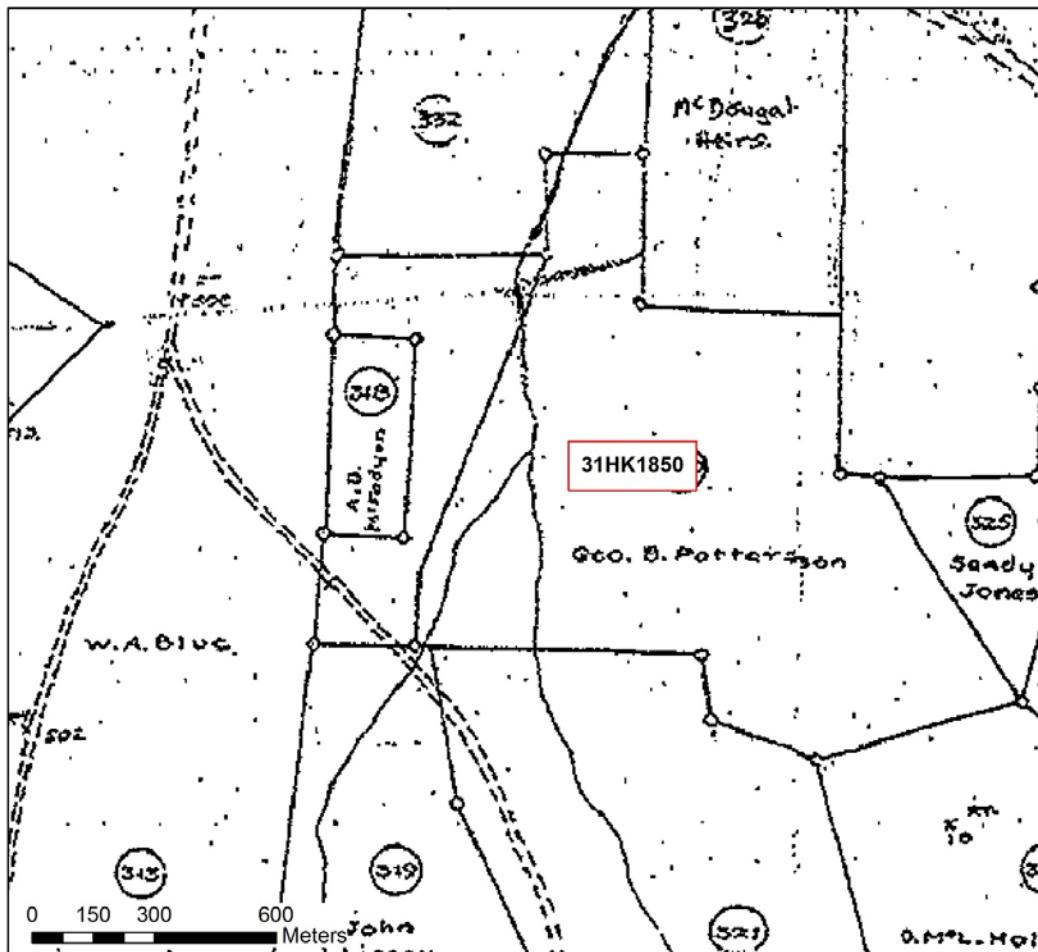


Figure 40. Site 31HK1850 on 1919 topological map (courtesy of Fort Bragg CRM).

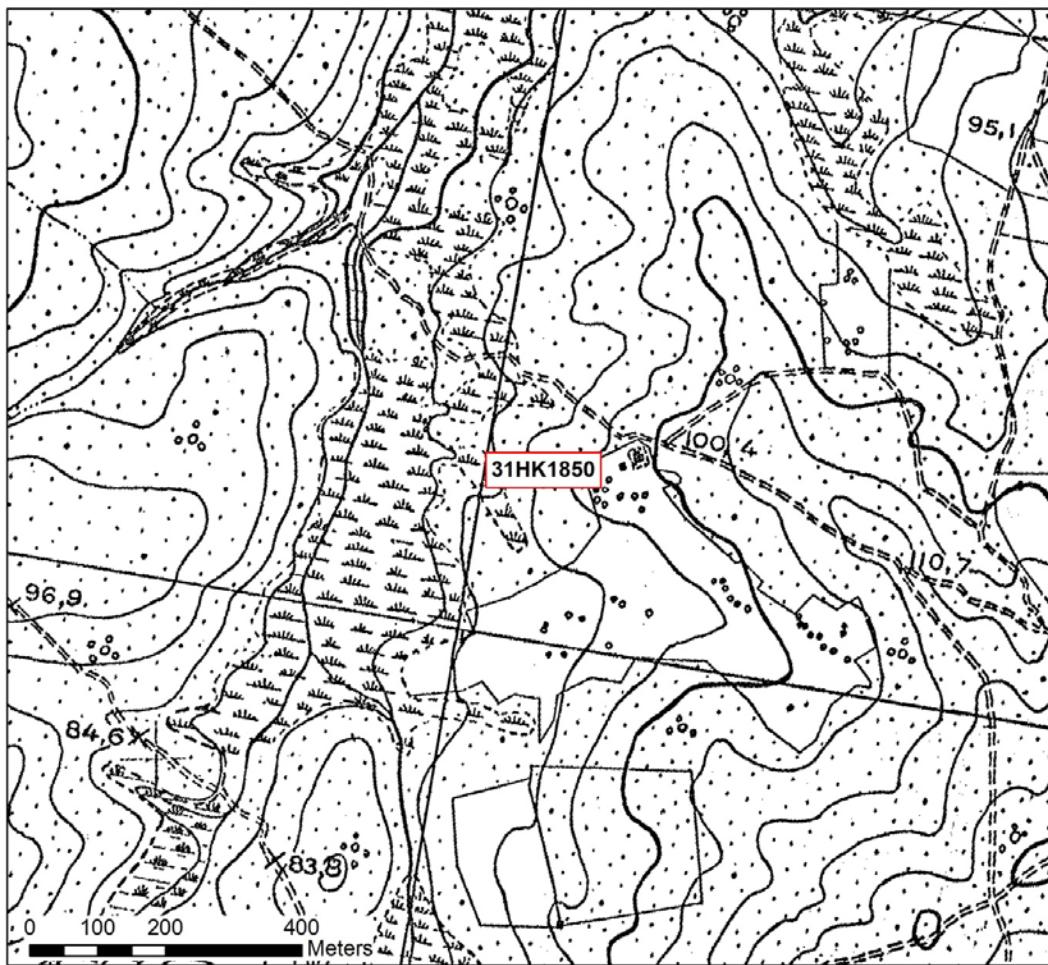
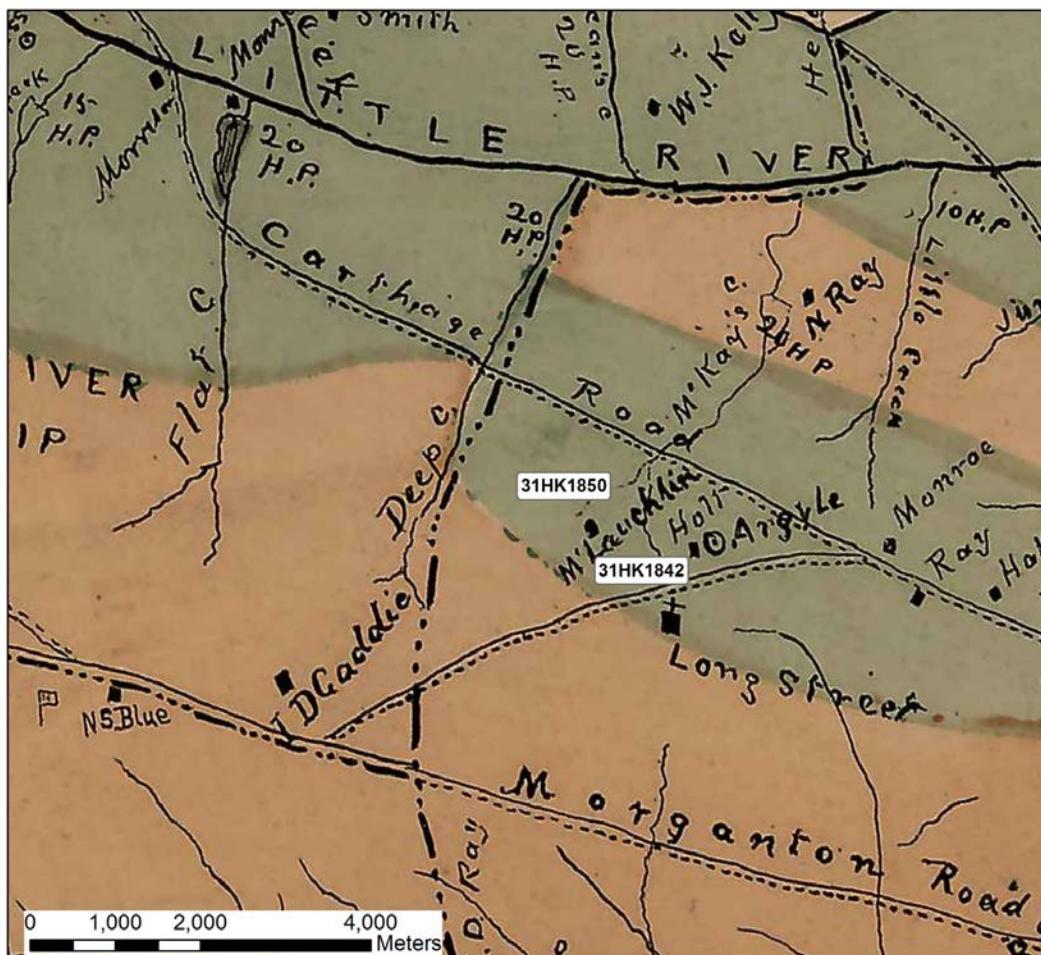


Figure 41. Sites 31HK1850 and 31HK1842 on 1884 McDuffie Map (map courtesy of Fort Bragg CRM). Site positions are approximate; georeferencing this map was problematic due to lack of firm control points.



4.3.3 Farmstead eligibility prescreening form

Level I Questions (*specific site answers in bold-faced type*):

1. Is the site less than 25% disturbed and therefore possesses high site integrity?
 - a. If YES: move to Question 2
 - b. If NO: Is the site 75% or more disturbed?
 - i. If YES: Site has altered integrity and therefore is NOT significant.
 - ii. **If NO: Site disturbance is between 25-75%, move to Question 2.**
2. Did the site have a function other than as an agricultural property? Is the property listed on deed records, maps, or other historical documents as something other than a farmstead?
 - a. If YES: Site may be eligible due to the low density of non-agricultural structures.
 - b. If NO: Move to Question 3.**

3. Is the site on historic maps, property deeds, or other historic documents?
 - a. **If YES: Provide timeframe of the historic documents as the site is potentially significant.**
 - b. If NO: Move to Question 4
4. Is there potential for intact buried deposits based on subsurface testing?
 - a. **If Yes: Site has potential for further research and is potentially eligible.**
 - b. If UNK: Site has potential for further research.
 - c. If NO: Site has altered integrity and therefore is NOT significant.
5. Does the site possess structural features, such as intact in-ground or above-ground architecture?
 - a. **If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Question 6.
6. Does the site possess artifacts that were manufactured prior to the beginning of the twentieth century?
 - a. **If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Level II evaluation.

Level II Questions (specific site answers in bold-faced type):

1. Is the site a portion of an associated series of sites within the local vicinity that could suggest a larger community or district?
 - a. If YES: Site and associated sites have potential eligibility as a district and require further investigation.
 - b. **If NO: Move to Question 2.**
2. Does this site possess multiple architectural features?
 - a. **If YES: The site is potentially significant.**
 - b. If NO: Move to Question 3.
3. Is there a foundation larger than 10 x 10 ft and less than 30 x 30 ft on the site? (Note: structures that fall outside of these ranges are likely outbuildings).
 - a. **If Yes: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Question 4.
4. Is there evidence of small (wells, privy, shed, crib, etc.) or large (barn, stable, storehouse) architectural features?
 - a. **If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Question 5.
5. Is there evidence of fence construction? Fence construction often signals long-term tenure and can assist in determining the extent of the property boundaries.
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. **If NO: Move to Question 6**
6. Was the site occupied by a person of historical, regional, or local significance?
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Question 7.

7. Is there any oral history available for this site?
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Question 8.
8. Was there extended or continual use of the site by one family?
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. **If NO: Move to END.**

4.3.4 Site evaluation

This site is a small site consisting of at least one and up to five architectural features. All of these features were described in the original Phase I survey as resulting from military training activity. In the opinion of ERDC-CERL researchers, however, there is some case for at least some, if not all, of these features being historic architectural elements. Element 2 is a berm surrounded by a brick scatter, with positive shovel tests dominated by architectural-type artifacts. This feature is most likely a chimney fall. The three depressions on the southern portion of the site are interesting as they seem to be in a similar orientation/alignment. None of these features are large enough to be large barns, but they may represent storage buildings, animal shelters, or pens. The artifact assemblage points to possible occupations in the late eighteenth to mid-nineteenth centuries and the late nineteenth to early twentieth centuries. Historic maps indicate that structures were present on the site when the military took possession of the land (1918–1919).

Spatial patterning of artifact density across the site (both on the surface and below ground) indicates possible evidence of activity areas within the site. Three shovel tests that contained artifacts in a much deeper context than the rest point to the possibility that there are subsurface features on the site. The forestry activity in the area is problematic, but evidence demonstrates that all efforts are being made to redirect logging activity away from the site center and no recent ground-disturbing activities were observed in the area near the features. Most importantly, the artifact assemblage points to this site being an early antebellum site, which would make it a rare site type for the Fort Bragg area.

Application of the prescreening checklist produced mixed results. In the first section, four clear *yes* answers and two *no* answers were recorded, with only one *yes* answer needed to continue to the second portion of the checklist. In the second part of the checklist, there are four *yes* answers, two *no* answers, and two questions unanswerable at this time due to lack

of information on the oral and historic record of this site. The evidence of the site's early age and remaining integrity indicate that this site should be considered Eligible for inclusion in the NRHP under criterion D.

4.3.5 Phase II survey results

Phase II investigations of this site were conducted by TRC and reported in "The Long Street /Argyle Community: NRHP Eligibility at Four Archaeological Sites on Fort Bragg, Hoke County, North Carolina" (Steen 2008). All information in this section is derived from that volume. The Phase II survey consisted of archival research, metal detector survey, geophysical survey, 393 shovel tests, 31 50-cm² test units, and 1 x 1 m and 1 x 2 m excavation units.

Archival research did not provide evidence as to the earliest land ownership or occupation, and the research could not trace ownership prior to 1891. In 1919, at the time the Army acquired the land, the property owner was a dentist, Dr. George B. Patterson. The site was occupied by tenants. The site at that time consisted of a three-room house and three log outbuildings. The site's condition was described as very poor, difficult to access, and in poor cultivation with only 40 cleared acres of the 283-acre tract. The appraisers stated the acreage had not been farmed in 1918. The names and races of the tenants were not recorded, but it can be assumed that these were people at the lowest level of the local economy. The property was not valued for salvage, and physical evidence at the site (preserved nails, melted glass, and scorch marks on footing stones) indicated that at least the house and possibly the outbuildings were burned in situ.

The metal detector survey produced 64 metal objects and 8 pieces of ceramic and glass. Most of the metal items were architectural or agricultural type artifacts, including nails, horseshoes, wagon and harness parts, barrel bands, and plow parts. A turpentine dip iron was also recovered, pointing to small industry activity at the site. The metal detecting survey, however, was hampered by large quantities of military shrapnel that were described in the report as exploded ordnance and bomb fragments. The geophysical survey did not produce reliable results for soil conditions at the site.

There were 393 shovel tests excavated. Of these tests, 126 produced artifacts, but only 17 produced more than 5 artifacts in each, and most

produced only 1 artifact each. One of the shovel tests discovered a subsurface feature and was expanded to a 1 x 1 m² test unit which revealed a pit feature with a burnt layer of sand and ash at the base. This feature produced cut nails, salt-glazed stoneware, and no modern trash, indicating that this feature predates the military ownership of the site. Excavation of 30 50-cm² test units were done in two clusters, the larger focused on what was believed to be the main house (near the chimney fall), and the second cluster focused on one of the outbuildings (possibly Element 6 in Figure 37). A 1 x 2 m² test unit was excavated at the base of the chimney fall and revealed a large stone chimney foundation. Brick scatter near the chimney base indicated the chimney stack was made of low-fired machine-made bricks. Surface and subsurface artifact densities indicated the chimney was most likely at the western side of the structure. The house appears to have been built on locally sourced sandstone piers. All architectural features appear to be related to the structures observed in 1919. No architectural features were located that date to an eighteenth-century occupation.

This site produced 1,343 artifacts during the Phase II investigations. Of those, 81 are prehistoric and will not be considered in this evaluation. A slight majority of the artifacts were recovered from the area of the main house, but these artifacts date mostly to the later occupation. Early nineteenth-century artifacts were located on the southwestern portion of the site.

Kitchen group artifacts comprised 31.5% of the assemblage, and most dated from the late nineteenth and early twentieth centuries. One piece of creamware, four undecorated pearlware sherds, and seven decorated pearlware sherds were recovered. Decoration types include edge decorated, and blue and polychrome hand-painted wares. Only eight pieces of stoneware were recovered from the site, including local salt-glazed and Bristol slip-glazed vessels. Other notable ceramic types were represented by single sherds, including black-glazed redware, yellow ware, and Bennington/Rockingham-type majolica. Finally, five sherds (representing three vessels) of Anglo-American porcelain dating to the late nineteenth or early twentieth century were recovered. There were 303 pieces of glass recovered from the site (compared to three times as many ceramics). Two-thirds of these glass pieces were melted and therefore had limited information as to vessel form or function. The only piece that was identifiable was a clear flask bottle.

The architectural artifact group made up 58.4% of the assemblage. Specific artifact types included 126 pieces of window glass, 4 pieces of a stock lock, 8 wood screws, and 646 nails and nail fragments. Datable nails included 588 cut nails and 57 wire nails. The nails were predominantly found in the vicinity of the main house and included nails of the appropriate size for lathing. Other artifacts found at the site include: 2 pieces of writing slate, 2 harmonica fragments, 2 shoe grommets, 1 safety pin, 4 porcelain buttons, a New York state militia button dating from 18151830, 1 turpentine dip iron, 9 barrel bands, 2 plow parts, fragments of an unglazed earthenware pipe stem, and 1 wagon wheel hub. No furniture group items were recovered.

The Phase II survey produced evidence of three occupational periods, a prehistoric component (not considered here), an early nineteenth-century component, and a late nineteenth- or early twentieth-century component. The earlier historic occupation is represented by a light scatter of distinctive ceramics in the southwestern portion of the site. The later occupation is represented by the remains of multiple structures (at least one of which appears to have been burnt down), at least one subsurface feature, and an artifact scatter. Little information of the earlier inhabitants was discernible, but this component is a rare site type on Fort Bragg due to its age. Historical records, the relatively low density of artifacts, and artifact types present would indicate that at the end of the nineteenth and early twentieth century, the site was inhabited by lower-income tenant farmers who supplemented their income by some small amount of cottage industry. It is possible that either of the two occupations might have been by ethnic minorities including Scottish immigrants or African Americans (slave or free). This site was determined **eligible** for the NRHP under Criterion D. Possible research questions include ethnogenesis and the economic relations between tenant farmers and local landholding families.

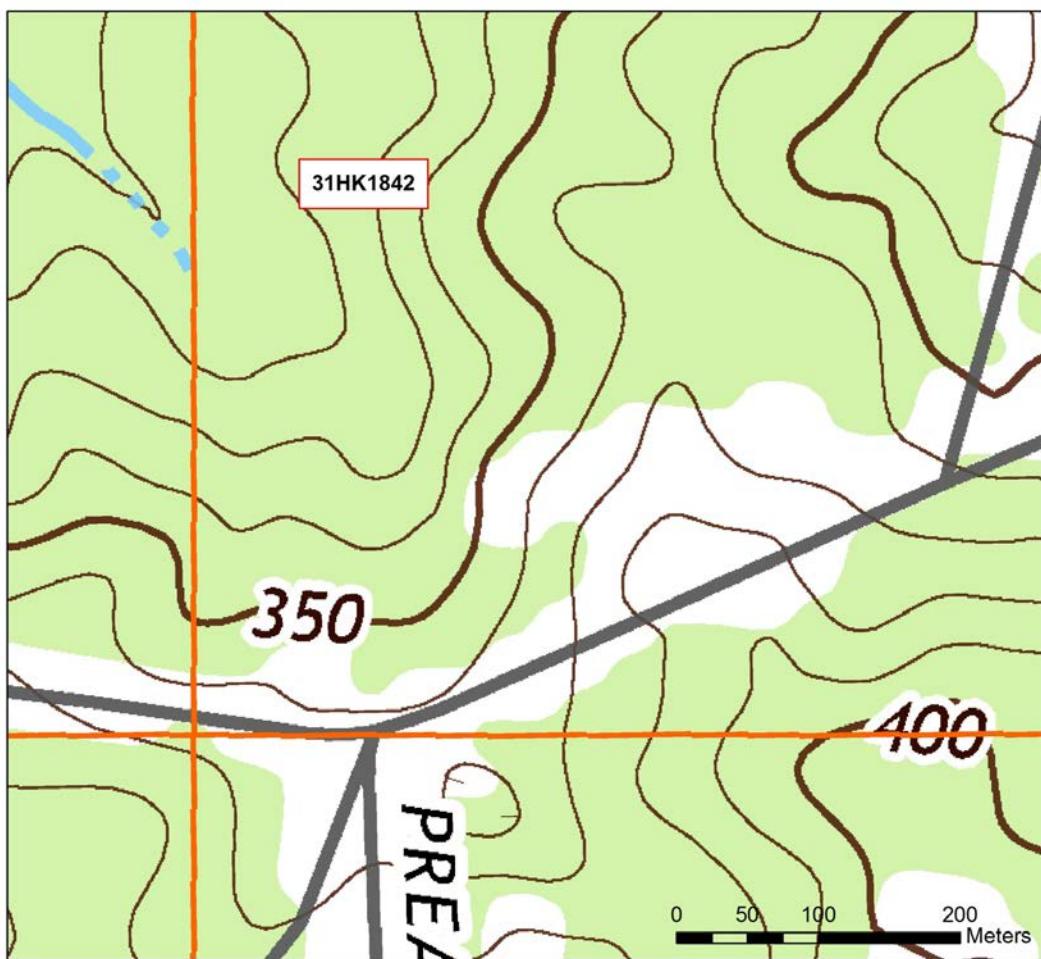
4.4 Site 31HK1842 results

Site 31HK1842 was first recorded in November 2003, and the account was published by Panamerican Consultants, Inc in their 2005 report, "Phase I Intensive Archaeological Survey of 1537.7 Hectares (3,775 Acres) L1, N2, M1, Q2, P2 and II2 Study Areas, Fort Bragg Military Reservation, Cumberland and Hoke Counties, North Carolina" (Gray 2005). The site was described as a lithic scatter and historic home site. The prehistoric component of this site will not be considered as part of this report.

4.4.1 Original Phase I results

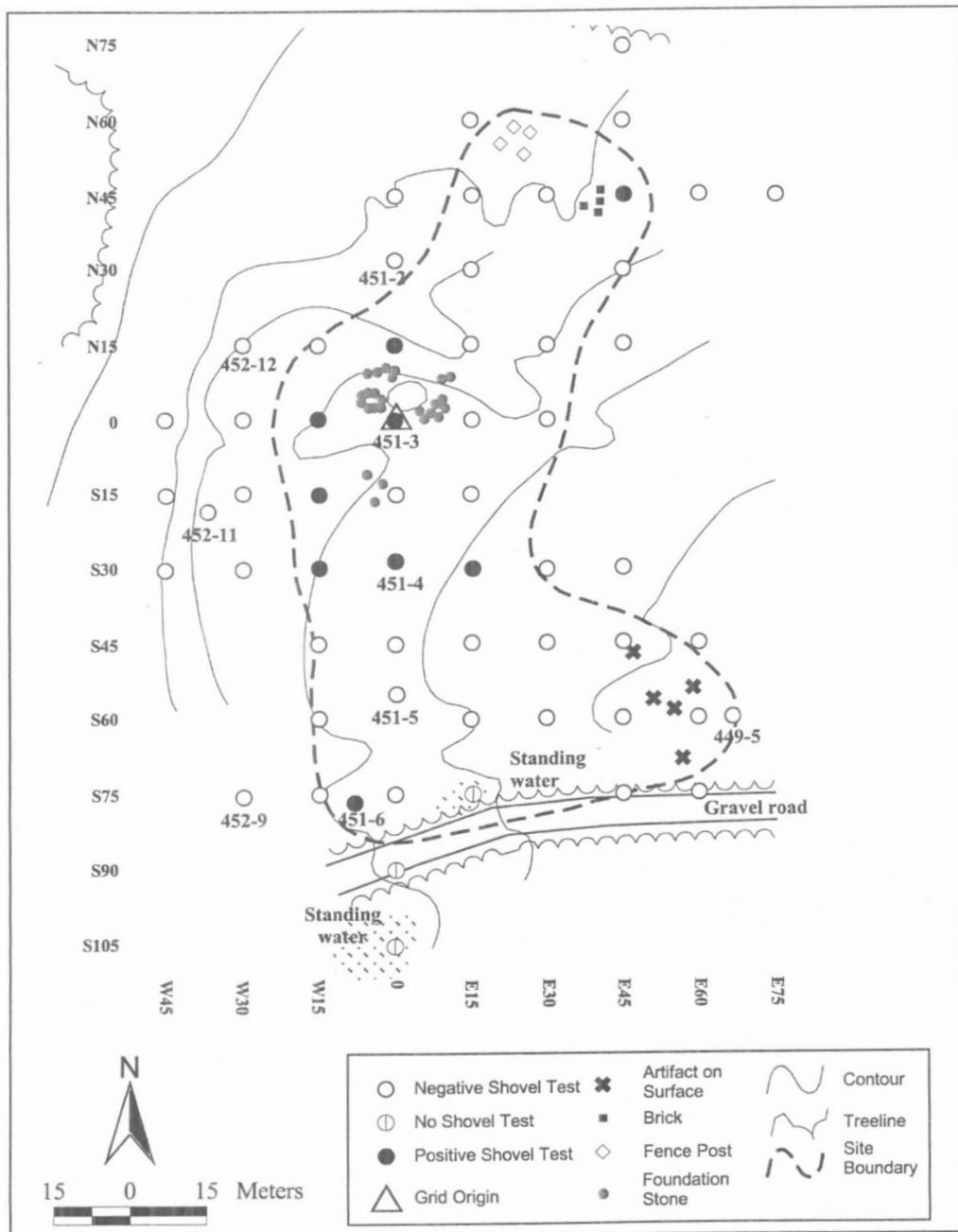
All information in this subsection is derived from Gray (2005, 468–470). The site sits on the western slope of a ridge (Figure 42). The nearest source of water, an unnamed creek, is located 100–200 m west of the site. The site is covered with a mixed coniferous and deciduous forest with moderate underbrush and heavy leaf litter. Surface visibility on both the original Phase I survey and the ERDC-CERL site visit were less than 5%.

Figure 42. Site 31HK1842 on 2013 USGS 7.5 quadrangle map (www.nationalmap.gov).



The original 2003 Phase I survey excavated 56 shovel tests, 9 of which produced artifacts (Figure 43). Additionally, surface features and in-situ fence posts were also recorded. The site consisted of two clusters of architectural features (in the center and northern portion of the site) as well as artifacts collected from the surface on the southern and eastern portion of the site.

Figure 43. Site 31HK1842, Phase I excavations (Gray 2005, p 469).



The central cluster of features consisted of an elevated area of soil surrounded by clusters of sandstone foundation stones. The foundation stones did not appear to be in a pattern, but did appear to be undisturbed. A small number of bricks were observed on the ground surface in the vicinity of the foundation stones. One shovel test in this area produced evidence of a possible subsurface feature that was consistent in size and shape with a post. This shovel test also had the largest number and

greatest depth of artifacts (7 artifacts up to 80 cmbs) of any shovel test at the site. The northern cluster of features was located in an area that displayed evidence of landscape modification. Four mortised wooden posts with cut nails in them were placed in a rough 5-m square in a low eroded area. This feature was interpreted as a possible animal pen. Southeast of this feature was an additional surface scatter that included bricks and possible wagon parts. The text mentions a low linear feature that divides the two feature clusters, but this feature was not depicted on the sketch map that accompanied the report.

4.4.2 ERDC-CERL site visit

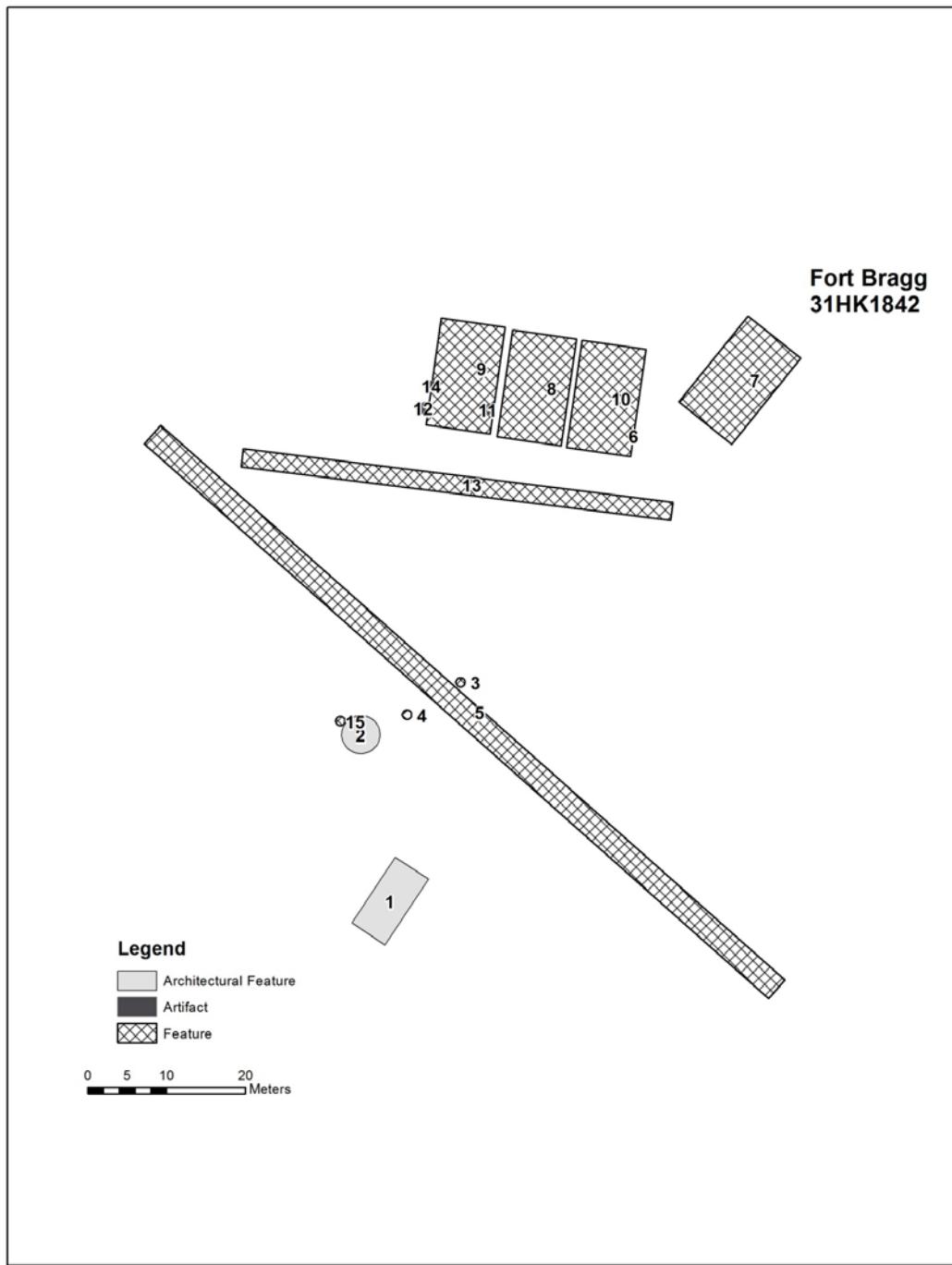
The methodology proposed in this report requires the archaeologist to pay particular emphasis during the Phase I survey to soil features that may represent the remains of structures or activity areas. ERDC-CERL researchers were able to identify and elaborate on most of the features described in the 2005 report of this site, as well as to identify additional features not described as part of that report. The one architectural feature that could not be fully discerned was the clusters of sandstone foundation stones that were originally reported near the raised earth area — only two stones were seen, and these were located on opposite sides of the road feature.

ERDC-CERL researchers identified 15 elements at the site, which are visually noted on Figure 44 and listed below.

1. Depression – less than .5 m deep, 5 x 10 m in size
2. Berm – 1 m tall, 2.5 m in diameter
3. Sandstone pier base
4. Sandstone pier base
5. Linear depression – 3-4 m wide
6. Mortised fence post
7. Three-sided depression cut into the side of the hill, .75 m tall berm on northeast wall
8. Three-sided depression cut into the side of the hill, 1.3 m deep at northern end sloping toward southern open end.
9. Three-sided depression cut into the side of the hill, 1.3 m deep at northern end sloping toward southern open end.
10. Three sided depression cut into the side of the hill, 1.3 m deep at northern end sloping toward southern open end.
11. Mortised fence post

12. Mortised fence post
13. Narrow linear feature, 2 m wide
14. Mortised fence post
15. Sandstone

Figure 44. Site 31HK1842 sketch map (ERDC-CERL, 2013).



Element 1 is a large, shallow, rectangular depression that likely represents the location of a structure on the site. This element was not described as part of the original survey, but it is the approximate location of positive shovel test conducted as part of that investigation. Elements 25 and Element 15 are believed to be part of the central cluster of artifacts described in the original Phase I report. Element 2 was interpreted by ERDC-CERL researchers as a chimney fall with some brick scatter along the edges of the feature. It is possible that this element is what was described as “elevated area of earth” in the Phase I survey (Gray 2005, 470). If this is the case, Element 15 and possibly Element 4 are some of the sandstone foundation stones reported in the first description of the site (Figure 45). Element 3 is also a sandstone foundation or pier stone, but it is too far away from Element 2 to be clearly associated with that feature. It is possible that this stone was not described in the original report. It was very close to the ground, and ERDC-CERL researchers identified it only after tripping on it. Element 5 is likely the old road or drive that was described in the original report (Figure 46). The relative positioning of Element 3 and Element 4 to the road is an interesting configuration. The stones sit on opposite sides of the road, and a line drawn between them is nearly perpendicular to the road feature. One interpretation of this layout could be that these stones might have been part of a gate or marker associated with the road.

Figure 45. Site 31HK1842, Element 5 (ERDC-CERL, 2013).



Figure 46. Site 31HK1842, Elements 15 and 2 (ERDC-CERL, 2013).



Elements 7–10 are particularly interesting. These four features appear to be deep three-sided depressions cut into the side of the hill. Visual observation of these features did not provide evidence if these sites were completely manmade or altered natural features. Elements 8, 9 and 10 were approximately 1.3 m deep at the northern end of the feature, and the floor of the feature gradually sloped to the southern, open end of the feature. Element 7 was shallower but a similar effect to Elements 8-10 was produced by the presence of a .6 m high berm at the northern end. At the southern end of these features were four intact, standing, mortised fence posts with machine-cut nails clearly visible in at least two of the posts (Figure 47 and Figure 48). Situated to the south of these features, is Element 13. This narrow feature (2 m wide) appeared to be perpendicular to the open end of Elements 8-10, and it is most likely the remains of some form of access road to the features immediately to the north.

The Phase I survey report of this site does not report the earthwork features (Elements 7–10) and suggests that the fence posts enclosed an animal pen. ERDC-CERL researchers, however, were of the opinion that the earthworks were the primary features for this portion of the site. The hypothesis that these features were animal or stock pens is reasonable, but it was felt more likely that the fence posts were part of a fence or gate system at the front of the pen, with the earthwork elements forming the sides and rear of each pen. An alternative hypothesis is that these features were roofed (in some way), and they could have functioned as storage or

work areas. While the specific function of these features is unknown, it is clear that significant activity, different in type and scale from other farmstead sites visited, was occurring at this site. It is possible that this activity included some form of small-scale industry.

Figure 47. Site 31HK1842, Element 6 (ERDC-CERL, 2013).



Figure 48. Site 31HK1842, machine-cut nail embedded in fence post, Element 11 (ERDC-CERL, 2013).



Historic artifacts were recovered from the surface and from positive shovel tests. One key diagnostic found at the site was an 1830 liberty copper penny recovered from the top 25 cm of a shovel test immediately south of the chimney fall (Figure 49). Diagnostic ceramics included white salt-glazed stoneware, annular yellow ware, creamware, pearlware (hand-painted, transfer-printed, and shell edge), transfer-printed whiteware, and machine-cut nails. This artifact assemblage indicates the site dates from the mid-eighteenth to the mid nineteenth century. The artifacts recovered from the area of the chimney fall consisted primarily of kitchen (including one lamp glass fragment) and architectural group artifacts. This part of the site is most likely the domestic habitation portion of the site

Figure 49. 1830 Liberty penny found at Site 31HK1842 (ERDC-CERL, 2013).



Historic maps of the site drawn up in 1884 (Figure 41) and 1919 (Figure 50 and Figure 51) do not depict any structures on this site. The recorded owner was Ellen McKeathon. There are multiple structures in the immediate vicinity of the site, however, and this includes the Long Street Church. Archaeological evidence indicates that the site was not occupied when the 1884 or the two 1919 maps were generated. The Long Street Church, a Presbyterian church located approximately 100 m south of the site, was constructed in 1765 and rebuilt in the 1840s which is within the age range of Site 31HK1842. Also, Element 5 is a road that heads in the direction of the church. It is therefore likely that this site was occupied at the same time and had nearly direct access to Long Street Church during its occupation. It is appropriate, therefore, to consider this site as part of a wider community. Fort Bragg CRM staff indicated that oral history was available for this site.

The site did not display any signs of recent ground-disturbing activities. No infantry fighting positions were observed within 50 m of the site. A pile of empty MRE (meals ready to eat) packets were recovered from the interior of Element 1. These appeared to be very recently generated and were removed by Fort Bragg CRM staff. No other evidence of site disturbance was recorded during this site visit.

Figure 50. Site 31HK1842 on 1919 property map (map courtesy of Fort Bragg CRM).

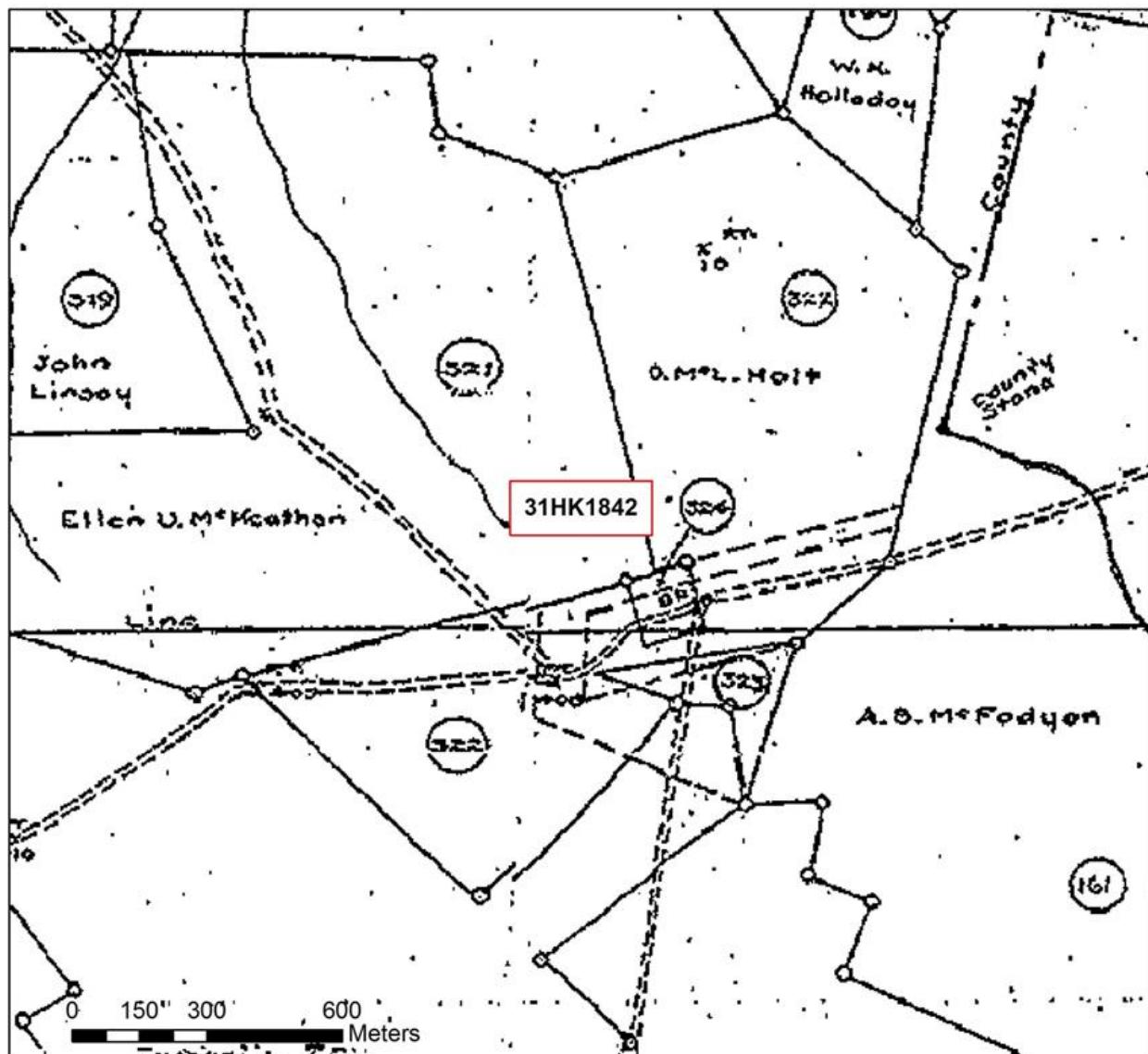
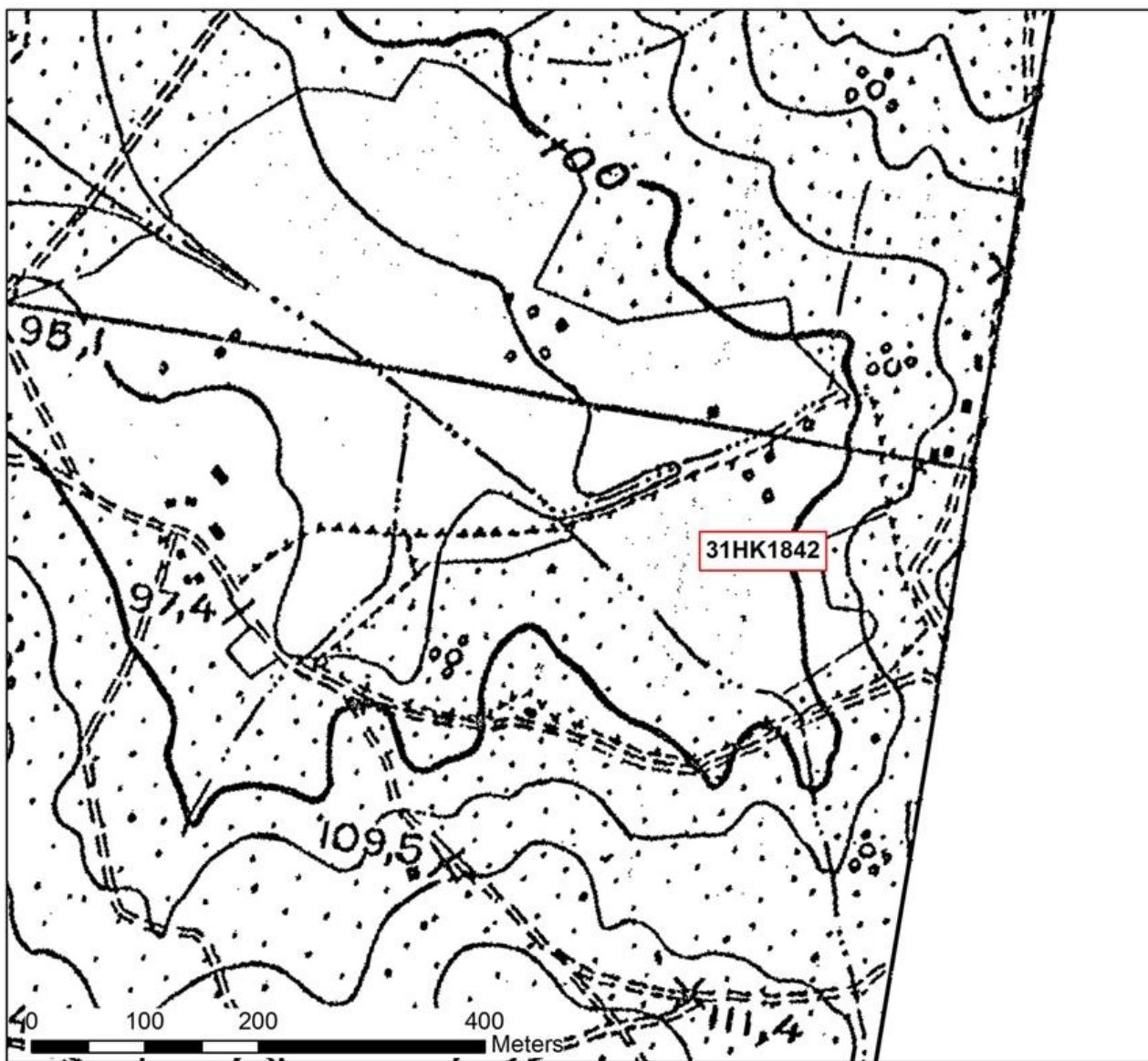


Figure 51. Site 31HK1842 on 1919 topographic map (map courtesy of Fort Bragg CRM).



4.4.3 Farmstead eligibility prescreening form

Level I Questions (specific site answers in bold-faced type):

1. Is the site less than 25% disturbed and therefore possesses high site integrity?
 - a. **If YES: move to Question 2**
 - b. If NO: Is the site 75% or more disturbed?
 - i. If YES: Site has altered integrity and therefore is NOT significant.
 - ii. If NO: Site disturbance is between 25-75%, move to Question 2.

2. Did the site have a function other than as an agricultural property? Is the property listed on deed records, maps, or other historical documents as something other than a farmstead?
 - a. **If YES: Site may be eligible due to the low density of non-agricultural structures.**
 - b. If NO: Move to Question 3.
3. Is the site on historic maps, property deeds, or other historic documents?
 - a. If YES: Provide timeframe of the historic documents as the site is potentially significant.
 - b. **If NO: Move to Question 4**
4. Is there potential for intact buried deposits based on subsurface testing?
 - a. **If Yes: Site has potential for further research and is potentially eligible.**
 - b. If UNK: Site has potential for further research.
 - c. If NO: Site has altered integrity and therefore is NOT significant.
5. Does the site possess structural features, such as intact in-ground or above-ground architecture?
 - a. **If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Question 6.
6. Does the site possess artifacts that were manufactured prior to the beginning of the twentieth century?
 - a. **If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Level II evaluation.

Level II Questions (specific site answers in bold-faced type):

7. Is the site a portion of an associated series of sites within the local vicinity that could suggest a larger community or district?
 - a. **If YES: Site and associated sites have potential eligibility as a district and require further investigation.**
 - b. If NO: Move to Question 2.
8. Does this site possess multiple architectural features?
 - a. **If YES: The site is potentially significant.**
 - b. If NO: Move to Question 3.
9. Is there a foundation larger than 10 x 10 ft and less than 30 x 30 ft on the site? (Note: structures that fall outside of these ranges are likely outbuildings).
 - a. **If Yes: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Question 4.
10. Is there evidence of small (wells, privy, shed, crib, etc.) or large (barn, stable, storehouse) architectural features?
 - a. **If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Question 5.

11. Is there evidence of fence construction? Fence construction often signals long-term tenure and can assist in determining the extent of the property boundaries.
 - c. **If YES: Site has potential for further research and is potentially eligible.**
 - d. If NO: Move to Question 6
12. Was the site occupied by a person of historical, regional, or local significance?
 - e. If YES: Site has potential for further research and is potentially eligible.
 - f. If NO: Move to Question 7.
13. Is there any oral history available for this site?
 - g. **If YES: Site has potential for further research and is potentially eligible.**
 - h. If NO: Move to Question 8.
14. Was there extended or continual use of the site by one family?
 - i. If YES: Site has potential for further research and is potentially eligible.
 - j. If NO: Move to END.

4.4.4 Site evaluation

This site is a moderately sized historic site consisting of two clusters of features divided by a historic road. The southern cluster of features consists of a chimney fall, one rectangular depression, and multiple sandstone foundation stones (apparently in situ). This portion of the site is interpreted as a residential area due to the nature of the features and the dominance of architectural and kitchen group artifacts. The northern cluster consists of a series of earthwork features associated with fence posts and a small road or track. This portion does not appear to be residential but may contain intensive animal husbandry, storage, or cottage industry activities. The artifact assemblage indicates that the site was most likely occupied from the mid eighteenth to mid nineteenth centuries.

Application of the *Eligibility Prescreening Checklist* provides clear guidance towards the evaluation of the site. In the first portion of the checklist there were five *yes* answers and one *no* answer, with only one *yes* needed to proceed to the second portion of the checklist. In the second portion there are six *yes* answers and zero *no* answers, with two questions unanswerable due to lack of information on the archival history of the site. The existence of unanswerable questions for this site is not problematic, however, since the presence of only three *yes* answers indicates that the site is eligible.

Site integrity appears to be high. Above-ground features that could be easily identified and removed from the site by looters or artifact hunters

remain in situ. Foundation stones also appear in situ near what is believed to be the residential structure. The patterning of surface and subsurface artifacts and the possible discovery of a subsurface feature during shovel testing point to a strong possibility of additional subsurface features. There is evidence of military training in the area, but none of this activity appears to involve earth-disturbing activities.

Based on the site integrity, early age of the site, proximity to the Long Street Church community, and presence of some unique feature types on the site, Site 31HK1842 is considered **eligible** for inclusion in the National Register under Criterion A and D.

4.4.5 Phase II survey results

The Phase II research of this site was conducted by TRC Inc. and reported in “The Long Street/Argyle Community NRHP Eligibility Evaluation at Four Archaeological Sites on Fort Bragg, Hoke County, North Carolina” (Steen 2008). All information in this section is derived from pages 139–179 of that volume. The Phase II research consisted of archival research, extensive shovel testing, 36 50-cm² test excavations, and 1 x 2 m test unit excavations.

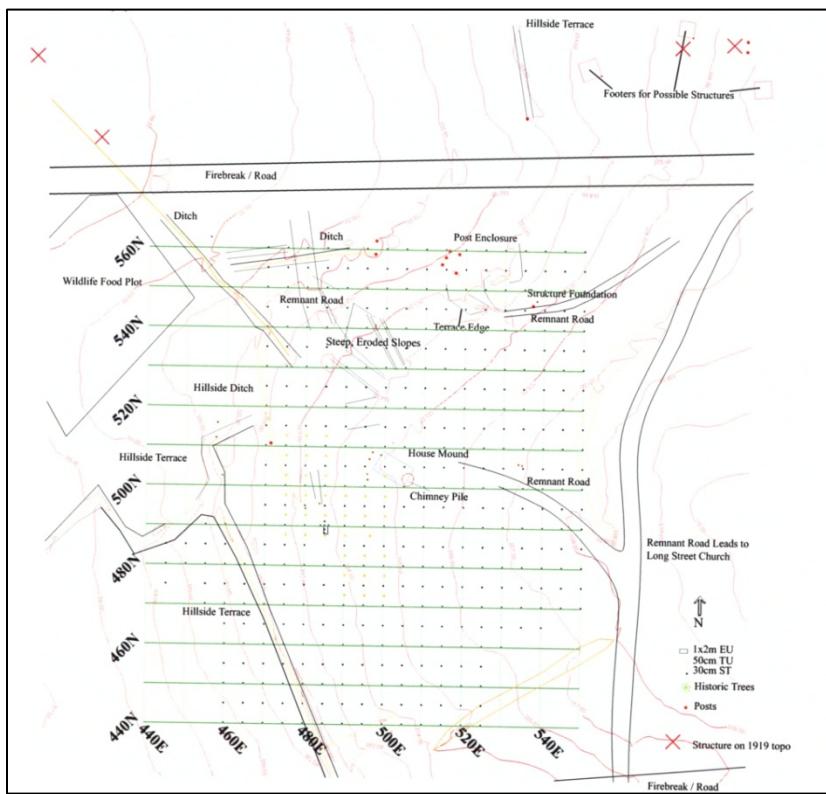
As with other sites examined for this report, a definitive chain of title could not be established. Early land transactions predated the township, range, and plat map systems that are currently used for land enumeration. Property transactions for the early periods in this region typically refer to the number of acres, the seller, the buyer, and the approximate location of the plot in relationship to bodies of water and/or roads. As a result, it is often not possible to pin the exact location of a site to a particular historic tract of land.

Textual evidence, however, does provide some clues to the history of the site. Long Street Church records generated by Rev. McLeod in 1923 (described in Steen 2008) state that the first church services were located at Alexander McKay's house and tavern north of the present church. This corresponds directly in time and location with Site 31HK1842. Alexander McKay was also said to be the owner of the land for the original church built in 1765. Alexander McKay is known to have moved to the area in the 1750s, and the McKay family acquired thousands of acres in what became Cumberland, Hoke, and Harnett Counties. Neill McLauchlin acquired 619 acres in 1813 from Alexander McKay's son Farquard. Neill McLauchlin's

son and heir, Duncan, donated 6 acres of land in 1842 to the Long Street Church, so it is likely that the area that Site 31HK1842 sits on was part of the 1813 transaction. Progress descriptions and census records indicate that in the early to mid-nineteenth century, the site was occupied by Duncan McLauchlin, his wife, children, his mother, and 1–6 slaves.

Detailed mapping of the site (Figure 52) confirmed the presence of most of the features mapped and identified by ERDC-CERL researchers (Figure 44). Element 1 was identified as a yard instead of a structural remains. Elements 8–10 were identified as a single structure instead of three, and Element 7 was identified as a structure foundation. The subterranean feature located in the Phase I shovel tests (identified as a post) was excavated in a test unit and identified as a filled-in trench.

Figure 52. Site 31HK1842 Phase II site map (Steen 2008, p 148).



The survey team excavated 432 shovel tests, of which 85 produced artifacts. In general the older materials were located around Element 2, while the nineteenth-century artifacts were clustered in the area of Elements 8–10. There were 36 50-cm² test units excavated, with 23 of these producing artifacts. No features were found in those test units. One 1

x 2 m test unit was excavated in a rich midden area and located the drainage ditch mentioned above.

The artifact assemblage was dominated by kitchen and architectural group artifacts. Ceramics produced a range of datable types including: porcelain, delftware, lead-glazed slipware, Whieldonware, Jackfield ware, lead-glazed earthenware, creamware, decorated and plain pearlware, and salt-glazed stoneware. Glass makes up a much smaller percentage of the assemblage than is seen at other sites in the region. This corresponds to the assumption that the older the site is, the less glass it will contain. Additionally, the majority of the glass on site was kitchen group items and not window glass. Glass vessel types included a spirit bottle, wine bottle, and wine glasses. Wrought nails were found at this site in significant numbers (28 whole and 97 fragments). There were 92 machine-cut nails recovered from the site, mostly from the northern feature cluster area. No wire nails were found at this site. The majority of window glass was recovered from two shovel test on the northwest and south east sides of the residential structure, indicating that at least two windows held glazing. Other artifacts found on site include: a South Type 18 button (1800–1830), stock lock, a large key, jackknife fragment, brass upholstery tack, seven pipe stem fragments, and lead shot. It was noted that the artifact assemblage contains the types that one would expect from an eighteenth-century tavern, but not the quantities. Many of the ceramic types were represented by a single sherd. Most tavern investigations in the past, however, have focused on urban taverns. It may be that a rural tavern would have a different use/discard pattern, or it may be that this was not a tavern but merely a wealthy frontier habitation.

The archaeological evidence from this site indicates that there were two periods of occupation. One occupation dates to the pre-Revolution era, when the McKay's were owners of the property. It is possible the site was used as a tavern or way house at that time. This site was tied to the establishment of the Long Street Church and may have temporarily acted as congregation meeting site. A later occupation, from the early to mid-nineteenth century represents the McLaughlin occupation. The northern portion of the site was most likely generated at this time. Due to the age, the importance of the site in the community, the prominence of the families that occupied it (particularly the McKays), and the possibility that this site may represent a rare example of a rural eighteenth-century

tavern, this site was recommended as **eligible** for inclusion in the national register.

4.5 Site 31HK214

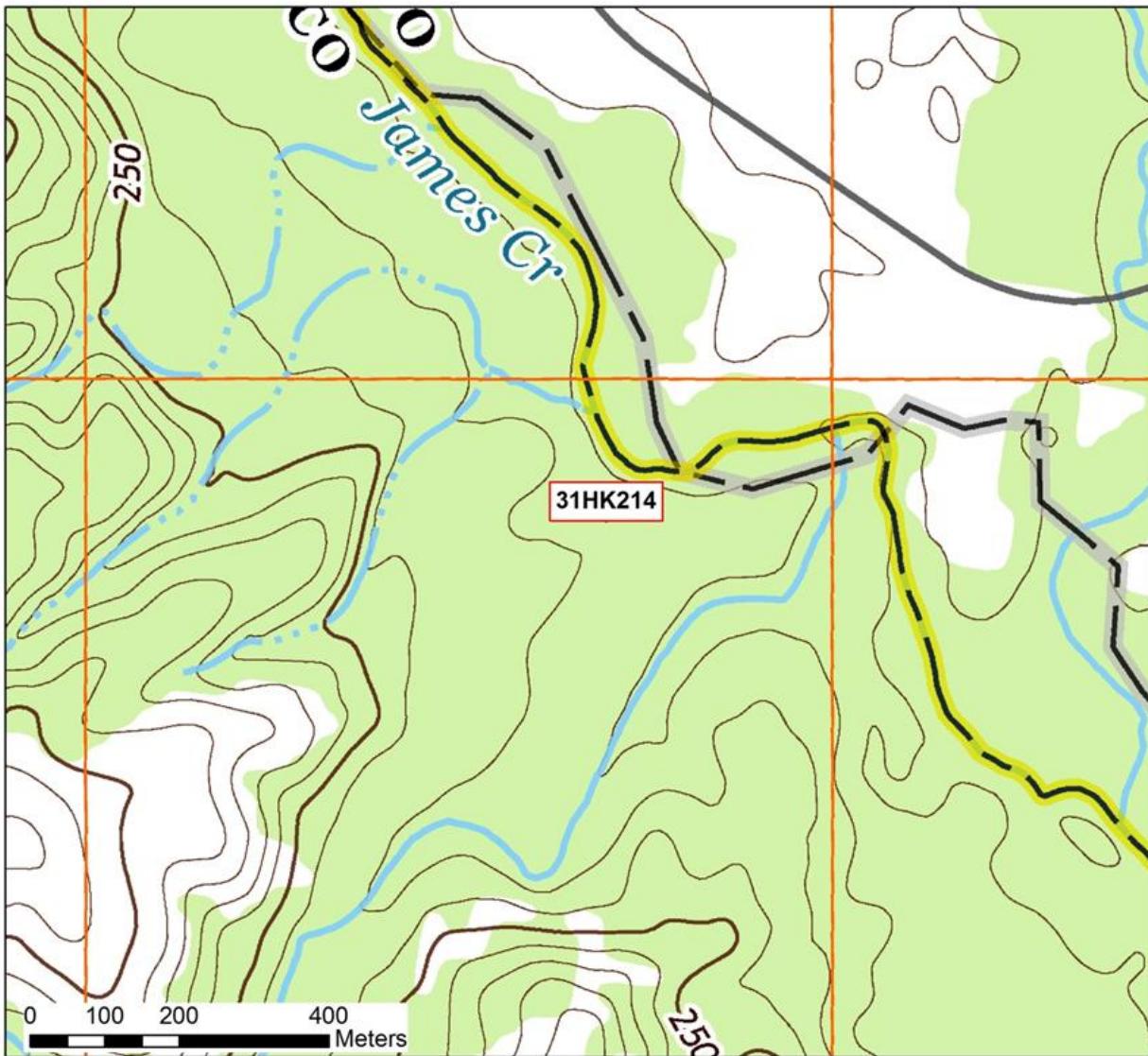
The Phase I report for this site could not be located. Three site revisit forms dated from 2000 and 2001 were located and provided information on the artifact assemblage recovered from the site. The site forms did not include sketch maps of the site or any description of visible surface features.

4.5.1 Original Phase I survey

The site sits on a terrace edge with a north to north-northeast aspect (Figure 53). The nearest water source, the James Creek, is located approximately 200 m from the site. The site is forested with a mix of deciduous and coniferous woodland with moderate to high amounts of undergrowth and leaf litter. At the time of the ERDC-CERL 2013 site visit, ground visibility was less than 10%. The site is located at a “Y” intersection in the firebreak road system. One road bounds the site to the north, and the other cuts through the southern portion of the site.

The site was originally reported to the state in 1977. It was revisited in May 2000 and January 2001 by Fort Bragg CRM staff, and it was revisited in August 2001 by TRC Inc. It was reported as a prehistoric and historic site with nineteenth to twentieth century occupation. The Fort Bragg CRM staff did not report above-ground architectural features, but the private contractor did. It is believed that this discrepancy is the result of a difference of opinions as to how best to describe chimney falls and foundation remains of architectural elements as either archaeological features or architectural remains.

Figure 53. Site 31HK214 on 2013 USGS 7.5 quadrangle map (www.nationalmap.gov).



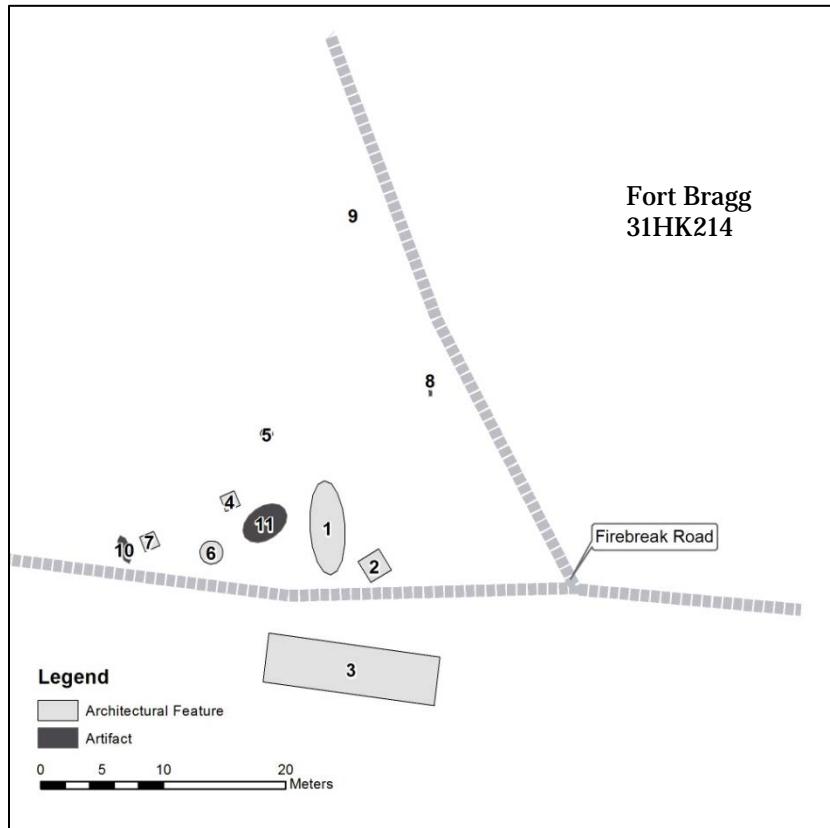
4.5.2 ERDC-CERL site visit

CERL researchers identified 11 elements on the site (Figure 54). These are:

1. Berm – 1.5m tall. 7 x 2 m in size. Brick scatter on surface. Dressed sandstone rock is located along the base of the feature. This berm has a low area, running east to west across the berm and cutting across the center of the feature.
2. Depression – less than .3 m deep, 2 m² in size
3. Depression – .3 m deep, 15 x 4 m in size
4. Sandstone foundation – .5 m high, 1.5 m² in size
5. Sandstone pile – .3 m high. 1 m in diameter
6. Sandstone pile – .25 m high. 3 m in diameter

7. Sandstone foundation –.5 m high, 1.75 m² in size
8. Fence posts – two mortised posts lying on ground surface
9. Fence post – single mortised post lying on ground surface
10. Brick scatter
11. Brick scatter

Figure 54. Site 31HK214 sketch map (ERDC-CERL, 2013).



The site is interpreted as a farmstead site. The large berm located toward the center of the site is believed to be a chimney fall (Figure 55). The size of the berm indicates that this may be an exceptionally large feature or the combined fall of multiple chimney features. The small depression (Element 2) may represent a small outbuilding or part of the structure associated with the chimney. The sandstone foundations observed on the western portion of the site may represent supports for portions of a large structure or entire floors of smaller structures. The Element 10 brick scatter is most likely associated with Element 7, while the brick scatter in the center of the site (Element 11) may be associated with Elements 1, 4, 6 or any combination of the three (Figure 56). Element 3 is a large rectangular feature that may represent a barn, stable, or storage warehouse. The lack of chimney fall would indicate it is not a residential

structure since even the rudest habitation structure would need a fire for food preparation. Finally, the presence of fence posts is an important element of the site (Figure 57). As stated in previous chapters, farmers fenced in their fields and gardens to protect them from wild and domesticated livestock so the presence of fencing elements provides further evidence that a site is a farmstead compound instead of a single residential site.

Figure 55. Site 31HK214, northern portion of Element 1 (ERDC-CERL, 2013).



Figure 56. Site 31HK214, Element 4 with Element 1 in background (ERDC-CERL, 2013).



Figure 57. Site 31HK214, Element 9 (ERDC-CERL, 2013).



Artifacts were observed on the firebreak road during the 2013 ERDC-CERL site visit. Artifact types included milk glass, clear bottle glass, window glass, whiteware ironstone ceramics, and an embossed copper lid. The site forms listed artifact types but did not provide information on the locations for artifact clusters or distributions. Some artifacts are listed as derived from positive shovel tests, with most finds located in the top 50 cm of soil. Artifact types reported on the site form include: container glass (aqua, clear, green, blue and amber), a wine bottle, molded aqua bottle neck with seam terminations on neck, medicinal bottle, glassware, pink and green floral transfer print ironstone, brown hand-painted ironstone, blue sponge-painted molded-rim pearlware, purple and green floral transfer-print whiteware, green transfer-print whiteware, brown annular hand-painted whiteware, undecorated pearlware, undecorated porcelain, undecorated whiteware, salt-glazed stoneware, Bristol slip stoneware, cut nails, iron stove fragments, iron pan fragments, pail/bucket handles, buttons, and milk glass canning jar lid.

This artifact assemblage provides a broad date range for the site. The multicolor floral transfer print ceramics provide date ranges from the late 1820s through the 1840s. Blue sponge-painted molded rims date from at least the 1840s. Green transfer print typically dates from the 1830s. Iron stoves and home canning equipment would indicate dates in the late nineteenth and early twentieth centuries.

No evidence of military training activity was observed at the site. The site, however, is bounded on the northeast and cut through on the south by firebreak roads that must be continuously maintained (Figure 58). It is

likely that the southern road has already damaged features of the site. The portions of the site immediately next to the roads are at high risk for disturbance through road grading, brush clearing activities, and erosion events. All artifacts that ERDC-CERL researchers observed at this site, apart from the fence posts, were seen in the road or in the cut banks at the road edges. The presence of in-situ fence posts and clear patterns of brick scatter associated with sandstone foundation stones, however, point to a moderate to high integrity for the central portion of the site.

Figure 58. Site 31HK214, depicting the vehicle and northern firebreak road from the site (ERDC-CERL, 2013).



The historic maps provide a great deal of information about the site. The 1884 McDuffie Map does not depict any structures in the area of the site (Figure 59). The 1919 Fort Bragg property map shows the site sitting on a large property (720+ acres) belonging to A. A. McNeill (Figure 60). This property is the largest single plot within a 5 km radius. Additional plots in the vicinity, including the plot immediately north of A. A. McNeill's land, are owned by McNeill family members. The 1919 topographic map shows this site in detail although the exact layout of structures on the site is garbled by the quantity of items depicted in a small area (Figure 61). The site is located the junction of five roads immediately next to a bridge crossing the James Creek. Structures are located 120-180 m. west, 166 m. northwest and 120-180 m. south of the center portion of the site – these areas were not visited by ERDC-CERL researchers. It is not clear if these are separate farmsteads to the central site or far flung outbuildings of a large and prosperous single farmstead. Fence lines are apparent on the

southwestern and central portions of the site, encompassing approximately four acres of land. Southwest of the site, and within the fence line, is an area with a stipple pattern. This is the map symbol for woods, but the regular spacing and pattern of the stippling is not common in other portions of this map. This symbology might be depicting an orchard. Fort Bragg CRM staff stated that oral history for this site was available.

Figure 59. Site 31HK214 on 1884 McDuffie Map (map courtesy of Fort Bragg CRM). Site position is approximate. Georeferencing this map was problematic due to lack of firm control points.

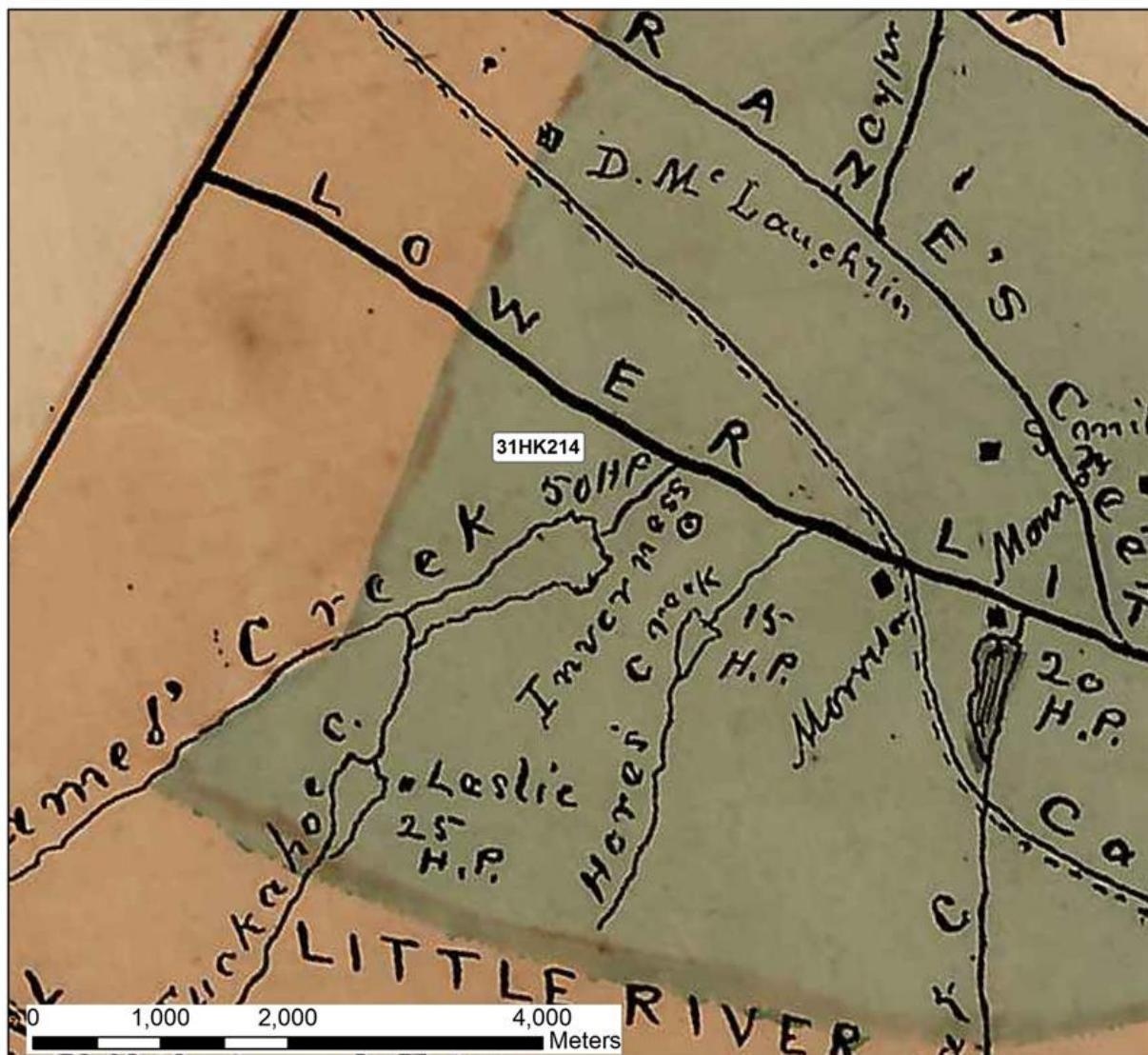


Figure 60. Site 31HK214 on 1919 property map (map courtesy of Fort Bragg CRM).

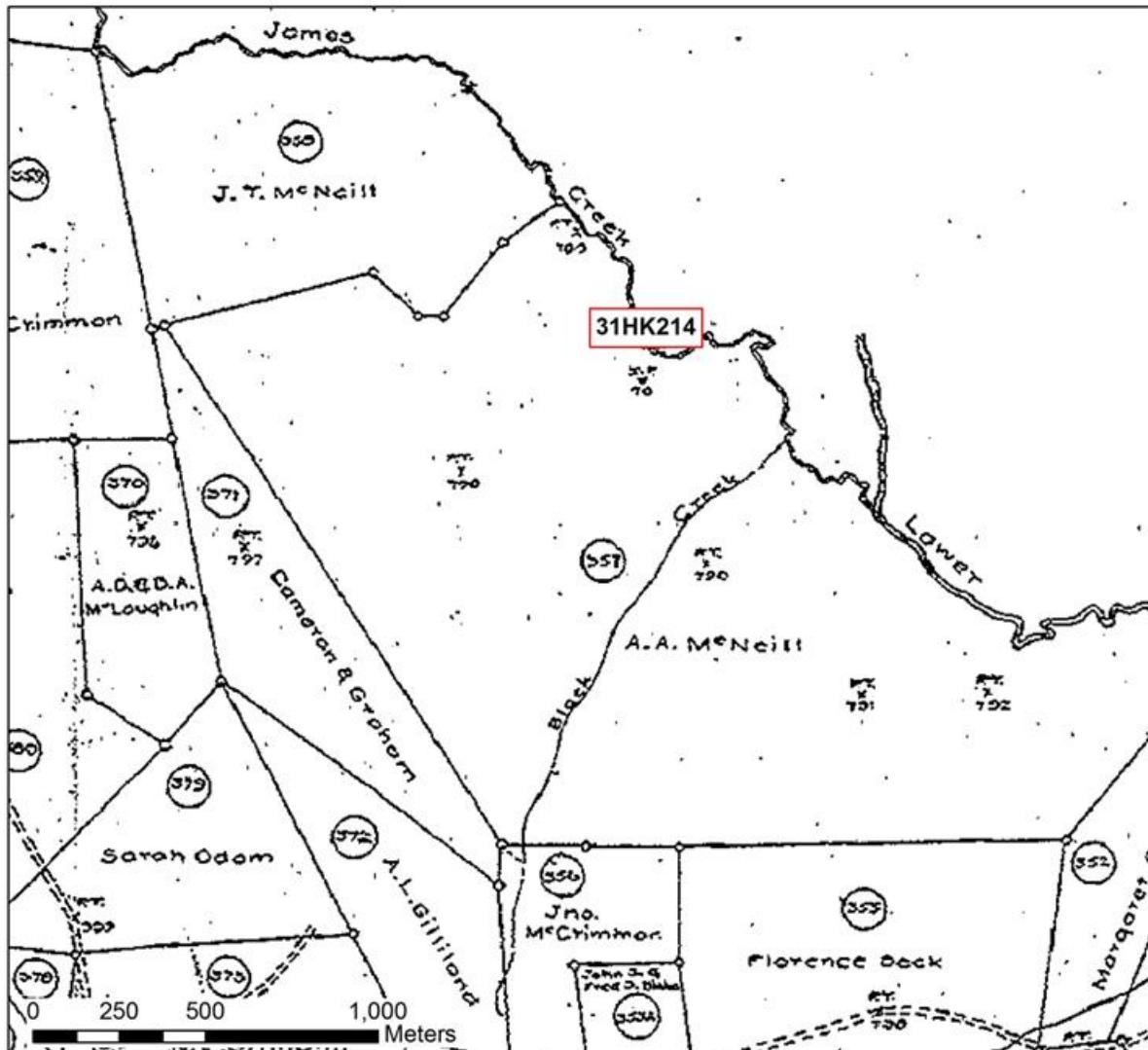


Figure 61. Site 31HK214 on 1919 Topographic map (map courtesy of Fort Bragg CRM). The site is located in the center of the image, but it is not labeled to avoid obscuring the map details.



4.5.3 Farmstead eligibility prescreening form

Level I Questions (specific site answers in bold-faced type):

1. Is the site less than 25% disturbed and therefore possesses high site integrity?
 - a. If YES: move to Question 2
 - b. If NO: Is the site 75% or more disturbed?
 - i. If YES: Site has altered integrity and therefore is NOT significant.
 - ii. If NO: **Site disturbance is between 25-75%, move to Question 2.**

2. Did the site have a function other than an agricultural property? Is the property listed on deed records, maps, or other historical documents as something other than a farmstead?
 - a. If YES: Site may be eligible due to the low density of non-agricultural structures.
 - b. If NO: Move to Question 3.**
3. Is the site on historic maps, property deeds, or other historic documents?
 - a. If YES: Provide timeframe of the historic documents as the site is potentially significant.**
 - b. If NO: Move to Question 4
4. Is there potential for intact buried deposits based on subsurface testing?
 - a. If Yes: Site has potential for further research and is potentially eligible.
 - b. If UNK: Site has potential for further research.**
 - c. If NO: Site has altered integrity and therefore is NOT significant.
5. Does the site possess structural features, such as intact in-ground or above-ground architecture?
 - a. If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Question 6.
6. Does the site possess artifacts that were manufactured prior to the beginning of the twentieth century?
 - a. If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Level II evaluation.

Level II Questions (specific site answers in bold-faced type):

1. Is the site a portion of an associated series of sites within the local vicinity that could suggest a larger community or district?
 - a. If YES: Site and associated sites have potential eligibility as a district and require further investigation.
 - b. If NO: Move to Question 2.**
2. Does this site possess multiple architectural features?
 - a. If YES: The site is potentially significant.**
 - b. If NO: Move to Question 3.
3. Is there a foundation larger than 10 x 10ft and less than 30 x 30 ft on the site?
(Note: structures that fall outside of these ranges are likely outbuildings).
 - a. If Yes: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Question 4.
4. Is there evidence of small (wells, privy, shed, crib, etc.) or large (barn, stable, storehouse) architectural features?
 - a. If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Question 5.
5. Is there evidence of fence construction? Fence construction often signals long-term tenure and can assist in determining the extent of the property boundaries.

- a. **If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Question 6
6. Was the site occupied by a person of historical, regional, or local significance?
 - a. If YES: Site has potential for further research and is potentially eligible.
 - b. If NO: Move to Question 7.
7. Is there any oral history available for this site?
 - a. **If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to Question 8.
8. Was there extended or continual use of the site by one family?
 - a. **If YES: Site has potential for further research and is potentially eligible.**
 - b. If NO: Move to END.

4.5.4 Site evaluation

This site is a historic farmstead consisting of multiple architectural features and located strategically at a crossroads and river (creek) crossing. The scale of the site is larger than other sites investigated and described in this report, as demonstrated by the information obtained through historic maps. The presence of a fencing system, multiple architectural elements with sandstone foundations, and the presence of a large chimney fall that may be the remains of a very large single chimney or multiple smaller chimneys all indicate that this site was a larger and potentially more prosperous site than surrounding sites. This evidence is corroborated by the 1919 property map that depicts this as the largest of a group of McNeill family properties within a 5–6 km radius.

The artifact assemblage points toward a site occupation from much of the nineteenth and early twentieth centuries. The oldest historic artifacts date from the 1820s and 1830s. Multiple artifact types, such as the ironstone wares and whitewares, have broad ranges from the mid-nineteenth century forward. More modern artifacts such as iron stove fragments and home canning equipment derive from the late nineteenth or early twentieth centuries. The site is depicted on the 1919 topographic map of Fort Bragg. All of this information leads to the conclusion that this site was occupied up to one century prior to military purchase of the land.

The site is damaged and susceptible to additional future damage due to the presence and maintenance of firebreak roads on two of the site's three sides. Artifacts were observed eroding out of the cut banks of the

firebreaks. There is, however, no evidence of military training or other ground disturbing activities in the central portion of the site. Architectural elements were visible on the surface and features could be associated with nearby surface brick clusters. Fence posts survived on the surface of the site, and artifacts were recorded from surface and subsurface testing. This indicates that the site had, despite the modern disturbance, moderate integrity and can still provide contextual information with further archaeological research.

Application of the prescreening form provides clear guidance for eligibility considerations. The first portion of the checklist produces three *yes* answer, two *no* answers and one *unknown* answer. The unknown answer is a result of the limited information on the state site forms related to the Phase I shovel testing results. Only one *yes* answer is needed to continue to the second part of the questionnaire. The second part of the checklist produces six *yes* answers, one *no* answer, and one unanswerable question. Three *yes* answers indicate that the site is eligible for inclusion on the NRHP.

Based on the long duration of site occupation, presence of multiple architectural features, moderate site integrity, and presence of this site in the written and oral historical record, this site is deemed **eligible** for inclusion in the NRHP under criterion D.

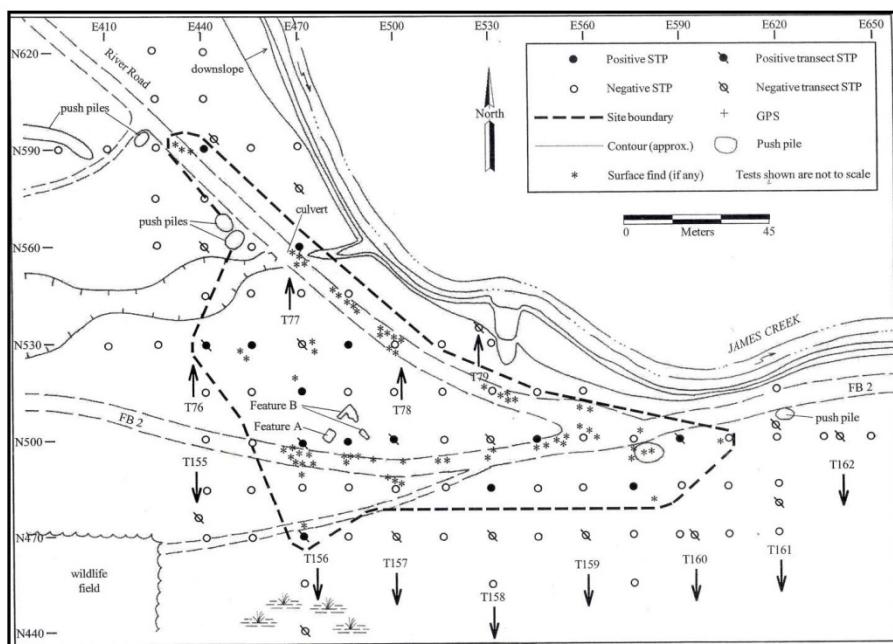
4.5.5 Phase II survey results

Phase II investigations of this site were released in 2012 as “Archaeological Investigations at the McNeill House and Farm Site (31HK214) Fort Bragg, North Carolina” by Fort Bragg CRM staff members Linda Carnes-McNaughton, Jennifer Friend, Jeffrey Irwin, and Charles Heath. The information in this section is derived from that report (Carnes-McNaughton et al. 2012). The Phase II investigations consisted of archival research, geophysical survey, metal detection, and test unit excavation.

The Phase II report provides some information on the earlier Phase I research for the site. Only the prehistoric component of the site was documented in 1977, and the site was recommended illegible for the NRHP. In 2000, the site’s historic component was brought to the attention of Fort Bragg CRM by a forestry worker. In 2001, a Phase I survey of the James Creek area by TRC included Site 31HK214 (Carnes-McNaughton et al. 2012). The site was described as having a certain component of late

nineteenth and early twentieth century farmstead and sawmill and a potential component of late eighteenth and early nineteenth century occupation. The Phase I survey map reproduced in the Phase II report indicated the presence of three features and a series of positive shovel tests (Figure 62). The features correspond in area to elements 1 and 6 mapped during the ERDC-CERL site visit.

Figure 62. Site 31HK214 Phase I map from Ruggerio 2005 (as reproduced in Carnes-McNaughton et al 2012, p 4).



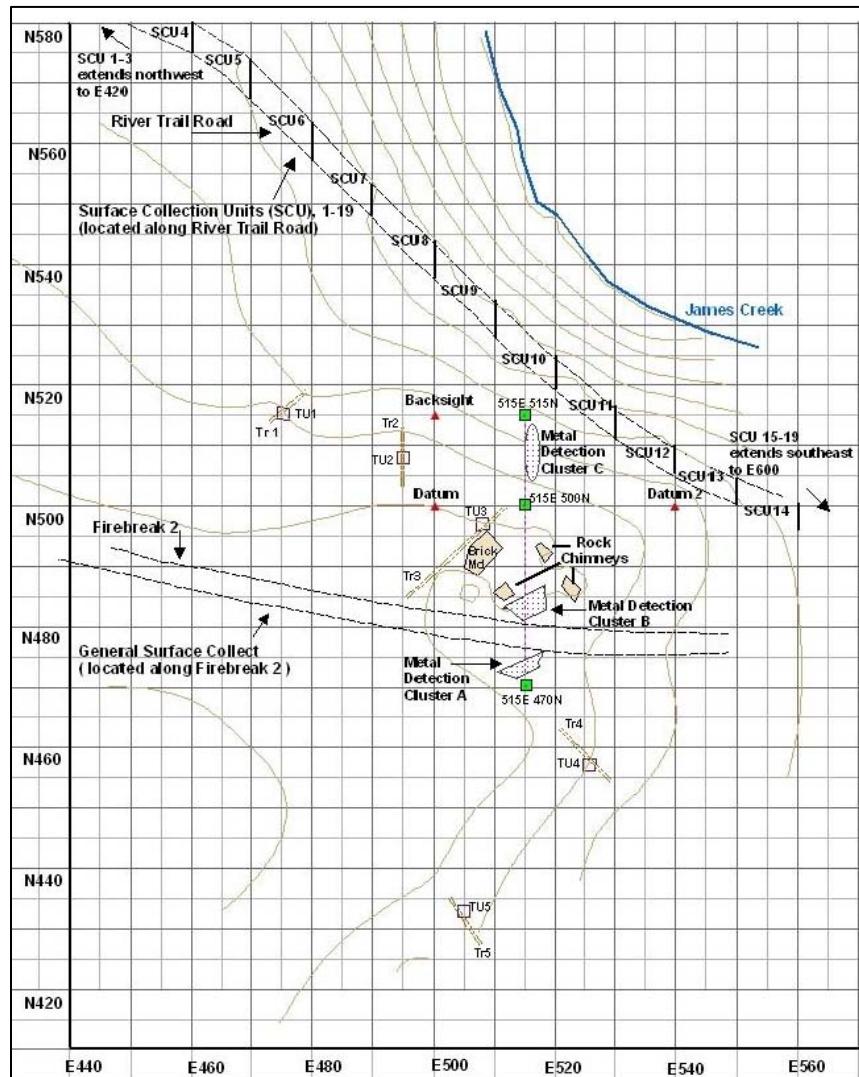
As with all other sites examined in this project, clear chain of title only extends back to the mid to late nineteenth century. Throughout the documented period of the site, the property was in the hands of the McNeill family. This family has a documented history of ownership and employment in the timber industry. The family history of timber working provides insight into an element on the 1884 McDuffie map (Figure 59) that was not recognized by ERDC-CERL researchers—east of the site is an annotation along the James Creek of “50HP.” If a sawmill was present at the site, this annotation may represent the generating power of the mill’s water wheel.

At the time of military acquisition in 1919, the property consisted of 736 acres, of which 85 acres were described as highly cultivated. The entire property was valued at \$19,745.60. Structures listed on the site were: an eight-room framed house with four chimneys, one 1296 sq ft barn, a

garage and machine shed, and 11 outbuildings. It is likely that some of these structures were located in the immediate vicinity of the house while others are the structures shown on the 1919 topographic map at up to 180 m distant from the house.

Geophysical survey included both magnetic field gradient and electrical resistance surveys. A series of anomalies were identified but not interpreted by the geophysicist. The 2012 report documents the test unit excavations that were conducted to verify the geophysical anomalies (Figure 63). Five 2 x 2 m units were hand excavated as part of this effort. No subsurface features were identified as part of the test unit excavations. Continued geophysical investigation of the site was not recommended.

Figure 63. Site 31HK214, Phase II site map (Carnes-McNaughton et al 2012, p 14).



Additionally, a controlled metal detector survey was designed to cross cut the household and agricultural activity areas of the site. A controlled and generalized survey of the firebreak roads was also conducted. Metal artifacts recovered from the controlled survey included: a shovel blade, horseshoe, hoe, cut nails, wire nails, axe blade, and glass (lamp, bottle, and window). Very little modern and military-related debris was found on the site. A total of 1,886 historic artifacts were recovered during the Phase II investigation. Most artifacts were recovered from the surface or the top 20 cm of soil. Only one test unit had a deeper deposition, with artifacts recovered from this unit at 40 cm below the surface. The majority of artifacts date from the late nineteenth and early twentieth century, but specific artifact types are not detailed in the report (with the exception of artifacts recovered from the metal detecting survey). Artifacts are listed by count and type: 241 kitchen group items, 825 architectural items, 24 activities items, 7 faunal/floral items, and 789 unidentified items. There is reference to the earlier artifact collections that included ceramic types of early nineteenth-century date ranges, but no further mention or analysis of an earlier occupation is mentioned in the report.

The Phase II survey determined the site to be **eligible** for inclusion in the NRHP under Criterion A, based on the presence of above-ground architectural remains, high artifact density, and limited disturbances.

5 Conclusions

The purpose of this project was to determine if farmsteads throughout the American South display typical architectural forms and site layouts that would allow land managers to more efficiently make final determinations of eligibility. This process also allows more effective management of eligible historic sites. Analyzing the components of the typical farmsteads that are most likely to yield information, and then focusing on sites with those components in an eligibility-determination methodology, allows for sites with high disturbance or limited historical documentary evidence to be removed from lists of potentially eligible sites. This, in turn, frees up valuable land for military training and other uses.

5.1 Findings of regional similarities

Sufficient regional similarities were encountered to suggest that the demonstrated method is viable and can be extended to other regions. Farmstead activities, regardless of time or place, are closely tied to agricultural function and as a result, will have similarities with other farmstead sites. Small regional differences were observed between Fort Leonard Wood and Fort Bragg. One example was the prevalence of naval stores and turpentine working as cottage industries on Fort Bragg as opposed to intensive animal husbandry as cottage industry on Fort Leonard Wood. The common feature in both locations, however, is that small-scale farmers will often attempt to supplement their income by participating in small industry. The kinds of secondary structures on the site (not related to cottage industry) and basic site patterning were also remarkably consistent between the two installations.

While there is intra-regional and extra-regional similarity in farmstead function, elements, and layout, the same is not directly true for the time dimension. Within the Southeast region, the longer time horizon resulted in greater temporal variation in farmstead components (predominantly the farmhouse design). Ideally, farmsteads should be evaluated against other sites of similar occupation period; for example, land managers should not evaluate Revolutionary sites against postbellum sites. Since house floor plans are typical throughout the American Southeast, artifacts should be considered as a major identifier for specificity of time period. Nails, whiteware, glass, and other manufactured materials with datable

attributes will assist in separating historic sites by historic period. For example, nails were mostly hand wrought until the beginning of the nineteenth century but once machine manufacturing of nails took hold in America, material attributes changed frequently and provided great fidelity from 1800–1890. Land managers should utilize multiple artifact classification when determining historic site occupation dates. The use of multiple artifact classification will prevent inadvertent dating errors.

One possible application of this report is as follows: Installation “X” is responsible for the management of 100 historic farmstead sites and based on architectural features, historic documents, and artifact classifications the following historic periods are determined: 10 Revolutionary sites, 50 antebellum sites, and 40 postbellum sites. Each of the historic periods are now evaluated against other sites with the same date range. When examining the 50 antebellum sites, the land manager can elect to remove historic locations in this inventory that the *Eligibility Prescreening Form* and site visit indicate as highly disturbed or possessing limited research potential. Sites deemed to possess greater research potential can be marked for further exploration, and they will remain on the installation’s site roster until final determinations are made.

5.2 **Applicability of methodology beyond the Ozark and Southeast Regions**

The application of the *Eligibility Prescreening Form* on Fort Bragg demonstrates that the successful results from its application at Fort Leonard Wood were not an isolated incident. In both trials, the Phase I technique focused on recording and evaluating the site as a group of features on the landscape, instead of the more traditional Phase I practice of identifying artifact distribution and age. It was determined through this work that the layout of farmsteads and the typology of the farmstead structures has little spatial variation from the Ozark location of the original study to this current project in the Southeast. As a result, it is possible that this approach to site evaluation is applicable to farmstead sites in all portions of the country. A need has arisen, therefore, to determine the actual area of applicability of the “typical” farmstead characteristics. Is it applicable in the Northeast? In the Northwest? How far into the western United States does it apply? These questions can only be answered by future research similar to this effort.

Modification of the *Eligibility Prescreening Form* would be required in each region to tailor the process to specific research questions, similar to the work done for this project. For example, the original prescreening form utilized at Fort Leonard Wood did not include references to fencing systems. Environmental conditions in Fort Leonard Wood do not facilitate the preservation of fencing elements, and these types of artifacts are uncommon. On Fort Bragg, however, fence posts do survive in and above ground, and fencing practices were a significant aspect of farmstead activity. As a result, a question related to fencing practices was added to the *Eligibility Prescreening Form*. Similar adjustments would have to be made to the form for each region, but these alterations should be seen as minor adjustments as opposed to major revisions or rewrites. The addition of more focused, smaller-scale historic contexts in the application of the extended Phase I survey advocated here is much less effort on the part of individual installations.

5.3 Applicability of the regional methodology for use in programmatic methods for NRHP eligibility determinations

The application of this technique showed that a modification in NRHP Phase I survey techniques has the potential to allow installation CRM staff to make definitive NRHP eligibility assessments on some of the historic farmsteads located on military installations in the Southeast. While some historic farmstead sites will continue to require Phase II evaluation, if even 25% of historic farmsteads could be evaluated for the NRHP without undergoing the costly Phase II evaluation process (in both time and resources), the savings to the DoD would be significant.

This idea of regional methodology could be institutionalized programmatically and applied to the “typical” farmstead likely to be found across much of the United States. The creation of a regional programmatic agreement (PA) for the determination of eligibility for a multitude of historic farmstead archeological sites will enable installations in that region to quickly reduce the number of “potentially eligible” sites on their land. In turn, this will result in cost savings as the number of Phase II surveys will also be reduced. By widespread application of a formalized methodology underlying the PA, streamlined management of these resources will be enhanced.

5.4 Benefits beyond determinations of eligibility

5.4.1 Military readiness increased

As stated previously, a site listed as potentially eligible for the NRHP must be preserved as if it were eligible, until a final evaluation can be made.

Many CRM offices around the country have significant backlogs of sites listed as potentially eligible and awaiting Phase II survey. As a result of this backlog, many hundreds of acres of training land are declared to be off limits for years. By shortening the process required for NRHP evaluations of those sites, CRM staff would assist Range Control in opening up additional lands for military use.

As a result, the DoD Readiness community and the Range Management community would be strong stakeholders in successful application of this methodology. The ability to make more timely final determinations of eligibility on historic farmstead sites will help meet military readiness goals by increasing the availability of land for training uses.

5.4.2 Significant cost savings

There is also the benefit of significant cost savings to the military. The average cost of a Phase II survey is approximately \$15,000-\$20,000 per site, and there are a large number of “potentially eligible” sites that currently await Phase II survey. This second survey effort is a significant expense for DoD to evaluate all these sites to Phase II standards. If applying the methodology described in this report can reduce that cost by eliminating the need for many of the Phase II surveys of historic farmstead sites, significant funds will be saved, and training can be accomplished more easily.

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14. ABSTRACT <p>The Army is tasked with managing the cultural resources on its lands. For installations that contain large numbers of historic farmsteads, meeting these requirements through traditional archeological approaches entails large investments of personnel time and organization capital. Through a previous project, Fort Leonard Wood and ERDC-CERL cultural resource management personnel developed a methodology for efficiently identifying the best examples of historic farmstead sites, and also those sites that are least likely to be deemed eligible for listing on the National Register of Historic Places. This report details testing the applicability of the Fort Leonard Wood methodology to another region of the country. The Southeastern United States provided a temporal depth different from the earlier Ozark regional application. A historic context and determination of the “typical” farmsteads of the Southeast were developed. The Eligibility Prescreening Form created by ERDC-CERL researchers was modified to reflect the archeological patterns of the Southeast and then applied to test sites at Fort Bragg. The results of the fieldwork show this approach is applicable to the Southeastern region, and it can be used to quickly identify basic information about historic farmstead sites that can expedite determinations of eligibility to the National Register.</p>					
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